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AN INTRODUCTION TO THE STUDY OF AFRICAN LANGUAGES

AN INTRODUCTION
TO THE STUDY OF
AFRICAN LANGUAGES

BY

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To M. H. W.

WHO, FIRST AND LAST,
HAS HAD A CONSIDERABLE SHARE IN THE
MAKING OF THIS VERSION

CAMBRIDGE, *March* 31, 1915.

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AN INTRODUCTION

TO THE STUDY OF

AFRICAN LANGUAGES

LECTURE I

WHY DO WE STUDY PRIMITIVE LANGUAGES?

As a rule, no long explanation is needed to make clear why a scientific traveller, an official, a business man, or a missionary should seek to acquire the languages of primitive peoples in our colonies overseas. All the world over, the first requisite for any one who has to deal with men is ability to communicate with them. When, therefore, a primitive people understands no European language the only course open to the European desirous of opening up intercourse with it is to learn its language. Later on I intend to discuss the practical importance attaching to the acquisition of primitive languages in some detail, because it is not even yet adequately recognised. But, in the first place, I have to deal with another question, the answer to which is not so immediately obvious: "Why should we *study* primitive languages? Why should

we not be content with a certain practical skill, without attempting to acquire a profound theoretical knowledge of so abstruse and unattractive a subject?"

I would reply, first, that the practice of an art can neither be taught nor carried on except on a basis of sound theoretic knowledge. Every practical farmer to-day is aware of his debt to recent researches in the chemistry of soils; every practical manufacturer keeps in touch with science in order, as speedily as possible, to utilise its newest discoveries. The practical man of business needs a vast amount of theoretical knowledge, if he is to avoid serious loss in the purchase, transport, and housing of his goods. Can we expect it to be otherwise with the learning of languages? It is not enough to know a string of words by heart, we must be able to put these words together, so as to evolve not merely some coherent meaning, but the actual meaning intended by the speaker. This is where the work of the theoretic philologist begins. He must compare and sift the materials gathered from the natives on the spot, so as to find the required rules. Having discovered the rules, he can demand further examples illustrative thereof from the men who know the language by practice. He can then hand on his results to the next traveller who visits the country, and so enable him to build on the foundations already laid. Later on he will have opportunity for fresh tests and comparisons, the material brought home by successive collectors steadily improving in quality and trustworthiness

as time goes on. Then, at last, he will be able to sketch out a fairly complete plan of the language. The course followed in such inquiries is, therefore, generally speaking, this: First, words and phrases are collected; then, from these, the simplest rules of grammar are deduced and set forth in a "grammatical sketch," with a short glossary. Upon this follows the publication of some longer connected texts, written down from the dictation of the natives; and, lastly, a complete grammar and a full dictionary are compiled. Only now can the language become a subject of instruction in the ordinary sense, and, by making it such, the theoretical philologist has solved his first problem. It may be assumed that all who have taught or learnt languages can to a certain extent understand this kind of philology. But even this work is by no means purely theoretical:—it has its roots in practice and produces practical results.

Purely theoretical philology, however, cares nothing for practical values, but seeks to discover laws and connections, quite regardless of their practical results. We are quite familiar with the idea of such studies when applied to classical antiquity, or to the ancient civilisations of Asia and Egypt. But that a purely theoretical science should busy itself with the speech of primitive peoples is apt to strike us as superfluous, to say the least. In the first case, we have the melodious languages of the ancient world calculated by their euphony to form the taste of students. But here we are dealing with the tongues

of barbarians, from which no one expects any sort of euphony—which are supposed to consist of half-bestial sounds, not similar or comparable to any civilised language. There we have an elaborate grammatical structure, shaped through successive centuries, from the earliest ages, by the hands of philosophers and scholars; here, a primitive barbarism, necessarily devoid of every semblance of polish and refinement. There, a literature which has aroused the admiration of all ages; here, people who are so far from possessing a literature that they have not even a written character.

What is the use of busying ourselves with such things?

Permit me to choose an illustration from an entirely different science, that of botany. The botanist cannot confine his studies to plants which have some practical utility, such as those producing foodstuffs, medicines, wood, dyes or fibres. Nor can he content himself with examining those which are conspicuous by their size or beauty, by the colour or perfume of their flowers. It is his duty to acquaint himself with everything pertaining to the nature of plants—their life-conditions, structure, organs, and development, and the enemies to which they are exposed. He must also, to the best of his ability, identify every specimen which comes into his hands, regardless of its size or attractiveness. Only so can he hope to ascertain the fundamental laws of the science and gain command of his subject. Just so with regard to philology. So far as theoretic

research is concerned, the comparative euphony of a language is a matter of indifference, not to mention the fact that people's ideas of euphony differ to an extraordinary degree. We know that Greek, usually considered a model language in this respect, certainly had a very different sound from that given to it in our schools. Can we call English, Arabic, German euphonious languages? That is entirely a matter of taste, and none of us would ever think of discarding our own tongue in favour of, say, Italian, on account of the superior euphony of the latter.

Æsthetic considerations like this simply do not exist for the philologist, however harsh the language under investigation may sound—it is the object of his inquiry, and, as such, worth study.

Again, the simplicity of its grammar constitutes no objection to the study of a language. In all subjects we begin, and rightly so, with the phenomena in their simplest forms: when these are fully understood we can pass on to more complex and richer developments. If we begin with complex forms it is difficult to discriminate between what is essential and what is subsidiary: in the simple form this discrimination is much easier. Neither is it apparent why the philologist should confine his attention to the highly-developed idioms of civilisation. We are not likely to attain our end in this way. Only when our intelligence has been trained by the study of primitive languages will it be acute enough to study the higher forms with profit. The

fact that this principle should to-day excite attention by its novelty, and that it should still be rejected by most philologists, can only be understood when we consider the history of the subject. Philology, up to the present, has dealt with Latin and Greek, with the addition, at most, of Hebrew and Arabic, or Gothic and Sanscrit. Unwritten languages are, for the most part, left to missionaries and ethnologists—both of them more or less amateurs as regards this branch of scholarship. It took long enough to get Arabic, Gothic, and Sanscrit placed on an equal footing with the classical tongues, and it will be still longer before the study of primitive speech is acknowledged as necessary to supplement that of the " literary " languages.

Neither should the absence of literature prevent our studying the primitive languages. The student of popular dialects has no literature—or only a very scanty one—to aid him; yet his work is of the very highest value, even from an historical point of view. In many cases, indeed, the popular dialect contains the only trustworthy evidence available for the history of a nation. On the other hand, it is precisely the absence of a literature—the lack of real urban culture, which gives the student a chance to discover the laws of a language in their unaltered form. No botanist would begin his studies on garden plants, no zoologist on the domestic animals. Both will seek those forms which are to be found as nearly as possible under primitive conditions, and only after studying the species in its natural state

will they proceed to consider its development under cultivation. It seems to me that the parallel with philology is here very close.

In urban culture, contact with foreign nations is inevitable. The barbarian in his horde is beyond comparison better able to avoid such contact. It is well known, indeed, that the Arabic spoken by the wandering Bedouin is even at the present day far purer and more archaic than the idiom of the cultivated town-dweller. When people live closely crowded together, language is apt to become worn down. In towns men have far more opportunities for talking, and therefore speak more rapidly than nomads. In rapid speech, grammatical accuracy and niceties of pronunciation are apt to be neglected, and words become rubbed and worn, like coins which are continually passing from hand to hand. Even writing does not tend to preserve the purity of language—rather the contrary. The written symbol takes the place of the audible sound; and then learned grammarians go on to propound rules and introduce scholastic forms quite alien to the real life of the language. We must remember, too, that literature preserves obsolete forms, makes use simultaneously of words belonging to different dialects, and, finally, introduces many words from foreign languages. It is thus easy to understand that writing may be a disintegrating force as far as language is concerned, while, at the same time, it may be admitted that in some respects it has a conservative influence.

On the other hand, we have, in the speech of primitive peoples, an object of investigation comparatively pure and unaltered—not disfigured by foreign importations, not confused by the wisdom of grammarians, and having a certain uniformity of dialect. I am well aware that all this is only comparative; but, even so, the points enumerated constitute a considerable advantage for the primitive over the culture-languages.

It remains, however, to consider the question whether these primitive languages are the worn-down remains of fuller forms of speech, or are still comparatively unaltered.

This question admits of very different answers according to the region of the world we have in mind. Not long ago, it was thought that the Polynesian languages were extremely primitive. To-day, scholars are convinced of the contrary, viz., that they have been subjected to a long process of attrition. At the present time there is a tendency among philologists to consider some of the "Hamitic" languages of Africa as greatly worn-down Semitic tongues. I cannot accept this view. Since the Hamitic languages possess living forms which appear in the Semitic as mere rudimentary survivals, I think we are justified in assuming the former to be the more ancient. We have, therefore, in every individual case, to inquire whether the primitive character of a language is original or acquired. It is true, the result matters little to the advance of research. The fact that a plant which we find

growing wild was once cultivated, or an animal now wild is descended from domesticated ancestors, involves no deviation worth mentioning from the primitive type, unless the reversion to the wild state is very recent. All qualities acquired through culture are apt to disappear speedily when an organism is transferred to its old environment and reproduces itself there. Thus, when we find a language in a comparatively simple form, it matters little, so far as our researches into its essential character are concerned, whether this is its primitive condition or the result of retrogression from a more advanced stage. The psychological conditions which, after all, are the main point, are, if not identical, very similar. For it adds to the difficulties of an inquiry, if the object of investigation is at the same time the instrument of our thought and work, viz., language. Many things which we regard as matters of course should by no means be taken for granted. It is only when we find them wholly or partially absent in primitive languages that we come to see that it is only habit which makes us think them essential. Those who know none but the languages of civilisation find it harder to get away from their accustomed forms of thought and speech than the student of primitive tongues. For example—one of the first questions we ask about an unfamiliar word is, " How should it be accented? " having no notion how difficult it is to define what we call accent, or how new the whole question of accentuation is. We want to decline a noun, on the model of

the Latin declension—*mensa, mensam, mensæ, mensæ, mensa*, etc., and then we discover that some languages, instead of changing the termination of the noun, express the modifications indicated by declension through changes in the termination of the verb. Thus the study of these languages upsets our whole grammatical theory, built up, as it is in the main, on Latin grammar, and forces us to disregard, once for all, the recognised forms and look at the facts alone for the psychological laws of human speech. There is thus a manifest advantage to be derived from the study of primitive languages.

Two objections have still to be met before we pass on to consider the existing state of affairs in regard to these tongues. We are assured that the authorities for our inquiry cannot be depended on, and that we have no ancient monuments from which to trace the historical development of the languages. It is quite easy to dispose of both these objections. A glance at the available literature is enough to assure us that we are far better informed as to the phonetics of many primitive languages than we are, for instance, as to the spoken sounds of classical Greek. Here we have to do with living speech, the sounds of which can be studied and fixed with unimpeachable accuracy by means of experimental phonetics. Classical Greek is a dead language, and its phonetics can only be inferred with some degree of probability from the sounds of modern Greek and the scraps of information supplied by ancient writers, but this uncertainty does not prevent our

studying Greek. It is strange that our information as to living languages should be thought less trustworthy than that available for dead ones.

To be sure, not all the information accessible to us is of equal value; but the fact that it relates to living speech is itself a guarantee that we shall some time or other be afforded an opportunity of correcting inaccuracies. In the case of a dead language we can never hope to attain more than a certain degree of accuracy. Unfortunately, we are only too apt to confuse sounds with letters. Because the old literary languages are before us in a fixed orthography, we think we are acquainted with their sounds; and yet it is evident that even in the classical languages many words were spelt in a purely conventional fashion, long after the sounds had changed. I therefore hold that, on the contrary, the linguist working at primitive languages has to deal with much better and more trustworthy materials than the ordinary philologist.

His material is not limited to a small section which happens to be preserved to us in books, but he can examine the whole language at his leisure, from all sides. He need form no theories as to what the sounds may have been like, but he can hear them for himself, and watch the native as he utters them. He can obtain word-forms which interest him whenever he wants them, and is not obliged to spend weeks and months in searching for them through the classical authors. In short, he has the very life of language before him, while the philologist has to

content himself with a more or less shadowy image of that life. Any modern student of primitive languages who should insist on getting his information entirely from books, without ever listening to living speech, would be entirely undeserving of attention. He would be transferring the methods of classical philology, which are employed because under the circumstances we have no choice, to the study of modern languages, where they are not only superfluous, but also harmful.

But at the present day there is not the slightest necessity for working in this way. In all great towns people of exotic race are to be found. For some years past I have had no difficulty in obtaining new linguistic material — my only difficulty has been to find collaborators equal to the task of helping me to gather in and work up the *embarras de richesse*. Besides, with the existing means of communication, a voyage to Africa is nothing out of the common, and it is therefore possible to study primitive languages at their source, in the fullest sense of the term. No one, then, has the excuse of insufficient materials; but some, no doubt, find it more convenient to work with books and written symbols than with living human beings and spoken sounds. Let not the reader, however, suppose that I think it impossible to work at any primitive language without first hearing it spoken. When the ear has become trained to seize unfamiliar sounds— when the inquirer has ceased to cleave to the letter and has learnt to work phonetically, he will be in a

position to utilise even imperfect notes of a language with which he is unacquainted. He will ask himself, " What can my informant have heard in fact, to make him write this? " If I am not greatly mistaken, moreover, all this work will be an important aid to the study of ancient written languages. Here, too, we have before us an imperfect rendering of the sound and are compelled to ask, " What can the spoken sound have been, which was written down in this way? " If, for instance, we are to-day forced to read Egyptian without vowels, the investigation of the living languages allied to ancient Egyptian will certainly yield valuable contributions to a reconstruction of that tongue. If, finally, we wish to understand the laws governing the sound-shiftings of dead languages, we must know the sounds themselves and not merely the symbols. It is surely absurd to try to understand the changes of a sound without knowing its nature. But sounds can only be studied in the first instance in living languages, not in dead ones.

I would, therefore, dismiss as unfounded the objection that our material is untrustworthy. On the contrary, I think the material which living languages offer us is far more trustworthy than what we can find in dead ones.

The second objection seems to have more weight. We have made enormous progress in European philology by the help of historical investigation. It so happened that we only arrived at an understanding of modern word-forms through very ancient

linguistic documents. The trained philologist, therefore, whenever he has to explain a word, turns to the most ancient forms and derives it from them according to fixed laws.

In the case of primitive languages this seems to be impossible. No primeval traditions, no inscriptions, no manuscripts are preserved to us; we have before us only the language of to-day. How can we work on the historic method—how trace the laws of development or degeneration, if we have no information as to the past?

The importance of this objection cannot be ignored. It might indeed be urged that the languages of Africa include some, such as Egyptian, Nubian and Libyan, in which we find word-forms going back to very ancient, in some cases to primeval times. Many an unwritten African language still preserves forms cognate with those just mentioned. Thus we have the means of working quite on the lines of the historic school. But, leaving this aside, I should like to call your attention to another very important consideration. We have already seen that urban civilisation and writing effect a rapid attrition of language. Forms recorded in writing are, therefore, not always the most primitive, but are probably, in most cases, already much worn down. Thus it may come about that the speech of nomads preserves for many centuries old forms long obsolete among the townsfolk. It is a well-known fact that the Bedouins of the present day speak a dialect of Arabic far more primitive than

the Hebrew of the Pentateuch. Any one who, without knowing the true state of affairs, should compare these two forms of speech, would certainly take the modern Arabic for the primitive and the old Hebrew for the modern language. I admit that the Hebrew, as we have it, was probably written down at a very late period; but this does not alter the fact that the linguistically older form is historically the more recent. This shows that, as a matter of fact, primitive languages may be very ancient languages, far older than Greek and Sanscrit.

All historical philology is, in fact, driven to accept the hypothesis that the earliest known stage of evolution was preceded by a yet simpler one, and it has thus become necessary to reconstruct, *e.g.*, the primitive Indo-Germanic language. But the further we depart from the facts for which there is satisfactory historic evidence, the more we have to depend on imagination, and therefore all such reconstructions must be accepted with the greatest caution.

In the primitive languages with which we are dealing the case is different. Here we have no hypothesis before us, but plain facts, and can therefore examine a stage in linguistic history far older than the oldest written languages, with the possible exception of Chinese. We shall thus be in a position to find trustworthy analogies for the reconstruction of the primitive forms from which the culture-languages have arisen.

Here, too, the advantage seems to me to be on

the side of the primitive languages. But there is one more point I should like to adduce as proving the possibility of accurate scientific work even in this field. Though, in historical inquiry, the comparison of forms separated in time is extremely important, yet this is not the only method of careful investigation. Natural science usually proceeds by the comparison of contemporaneous forms separated in space, and has thus discovered their organic laws. The linguist can do the same. The languages of primitive races are mostly understood by a few individuals only—never by many millions, like the culture-languages. The smaller the number of individuals speaking one language, the greater the number of languages. We therefore have to do, not with a few dozen, but with hundreds of languages, and thus our material for comparison is as ample as we could wish. No historical philologist has such wealth at his command. Now, as the zoologist or botanist can trace the evolution of similar contemporaneous forms, so we can build up the history of language from the comparison of contemporaneous dialects, and are fortunately at the same time in a position to test our reconstructions at each fresh step by comparing them with the living object. This will give our method a certainty which, in its turn, will help us to supplement and elucidate the work of classical philology. I refer more especially to the laws of sound-shifting, which are much more extensive in Africa than in Europe.

If, now, I proceed to deduce from my study of

primitive languages an answer to the objections above enumerated, I am enabled to maintain, in the first place, that there is no such thing as a language consisting entirely of inarticulate sounds. It is true that, in African speech, we meet with a series of sounds which are wanting in English. But we find the same thing when we learn German, French or Russian. A number of sounds strike the European ear as strange and barbarous; but Arabic, too, has sounds whose nature is very difficult to identify, so difficult that many specialists in Oriental languages make no attempt to pronounce them. It is not true that any human language has a bestial or ape-like character: any statements to this effect are mere idle talk. Many erroneous assertions have been made about the clicks of the Hottentots and Bushmen; but these sounds are no more bestial than the click which is often enough uttered by educated Europeans as an expression of regret or sympathy.

If we speak of the grammar of African languages, we are apt to meet with incredulous astonishment. Our hearers object: "But surely they have no grammar!" If this means that the grammar is as yet unwritten, the assertion is likely to be correct.

In this connection, however, we do not mean by the term grammar a book of rules, but the laws contained in the language itself. The laws are there,—otherwise no intelligible expression of thought would be possible. But one has to find them out for oneself from the texts. It is often suggested

that this cannot be a very difficult task, as the languages are so very simple and undeveloped. Those who say this overlook the fact that a primitive stage of development is by no means necessarily simple. On the contrary: the tendency of linguistic evolution is to discard cumbrous formations and get rid of minute distinctions as culture advances. It is not the case that the civilised man speaks correctly and the primitive man carelessly—it is the other way about. The civilised man neglects a whole host of details in order to emphasise a few words which to him are the most important. The primitive man relates with tedious minuteness every single thing which happens or is said to have happened. Among European languages, the richest in forms is Lithuanian, now only spoken by peasants. But even that fails to approach the wealth of forms found in the Bantu tongues of Central and Southern Africa. So copious is the variety shown in the formation of the plural, and of the genitive, in the conjugation of verbs, in the pronouns and the locatives, that even a keen worker might be discouraged by it.

The vocabulary, too, is by no means so scanty as might be supposed. Every kind of palm, every antelope, every variety of basket or mat, has, as might be expected, its own name; the cocoanut, even, has a different name for each stage of ripeness. We are accustomed to modify the verb "go," for instance, by the addition of adverbs or other particles: "I go in," "I go out—up—down—

back," etc. All these notions are expressed by different verbs, each of which has to be learnt separately.

It belongs to the nature of civilised languages to create general ideas, including whole groups of particular notions. The civilised man has to acquire such a variety of knowledge that he frequently fails to recognise important distinctions, even in things which come under his own observation. How many town-dwellers, even if they know a corn-field from a meadow when they see it, cannot tell whether the corn is rye or barley—to say nothing of distinguishing between winter and summer rye, or the different kinds of barley. It is quite otherwise with the man who lives close to nature. He is familiar with a number of distinctions which escape our notice, and therefore has, in many respects, a richer vocabulary than ours.

Peoples unacquainted with writing cannot, of course, possess a literature in the strict sense of the term. But, independently of writing, primitive races have a certain store of intellectual products. Tales and fables are very numerous in Africa; the abundance of apt and racy proverbs is unique; songs, myths, incantations and legends are also found, and all these live on, by unwritten tradition, in the mouths of the people. The question has long been hotly debated, how far and for what length of time such things can be orally transmitted: here, too, all theoretic considerations can be tested by comparison with the facts. Furthermore, we are

enabled to examine how far these things arise spontaneously from a universal psychological need. Knowledge thus acquired will be exceedingly helpful in determining how the oldest literature of a people originated. And it is just here that the practical utility of our observations, and the services they can render to other sciences, become evident. The soul of a people can be studied in their tales and fables, in their proverbs and songs; and this is of the highest value to every one who has any dealings with that people. Above all, their usages and customs give us the key to their laws and institutions —a matter of the highest importance to colonial officials. The student of primitive religions can in this way acquire material of more use to him than a multitude of ritual objects of which he does not know the use. In this way the ethnographer can find the explanation of various objects hitherto displayed in museums as mere curiosities. In short, the importance of this unwritten literature is much greater than would at first sight appear.

The tendency to look down on primitive forms of speech as a subject not worth studying belongs, in the last resort, to the "Romantic" period of the nineteenth century. This period rendered us the signal service of awakening enthusiasm for the greatness of the past. But the appreciation of all that is great and significant in connection with the Romantic movement must not blind us to the fact that excess of devotion to the historic method and reverence for the past may lead to neglect of the

living present and the future. Philology can no longer cling to antiquity: it must, with powers trained in the school of historic research, take up the languages of the whole world—those of the great civilised nations in the Far East as well as those of Africa and the South Seas. They must be penetrated by European knowledge, filled with the spirit of Europe and become the vehicle of European thought, so that our energy and intelligence can duly co-operate in the raising and opening up of distant worlds.

And this is the reason why we study primitive languages.

LECTURE II

A SURVEY OF AFRICAN LANGUAGES AND LANGUAGE-FAMILIES

COMPARATIVE philology is not a popular subject. The aim of its inquiries is not immediately obvious to the non-specialist — its methods seem to him arbitrary, and its results very uncertain. Indeed, it is not to be denied that the pursuit of this particular science is peculiarly liable to error, or that the methods followed by many of its votaries are far from unexceptionable. Yet a large proportion of what has been achieved is so far trustworthy as to be available for practical use. If, for example, I have to learn a new language belonging to a known family, I can construct many words in accordance with the phonetic laws familiar to me. Sometimes I find, later, that the real word is different, but in a great number of instances the word has proved actually to exist in the form I had conjectured— very often to the surprise of black and white alike. I have even been fortunate enough to discover that a sound, the existence of which I had assumed, really occurred, and was articulated in the precise manner I had supposed. Such little cases of good fortune

are useful to the outsider by giving him confidence in the method. I say "good fortune" advisedly, for it is a mere accident that the sound in question happens to be used at the present day; it might just as easily have been lost or modified. My hypothetical formulation, however, would have been correct all the same, being completely independent of the actual occurrence of the sound.

We must not suppose, therefore, that comparatively philology has to do only with arbitrary resemblances, devoid of all practical significance. On the contrary, it is in search of fixed laws, it attempts to ascertain the life and growth of speech in its normal course. This implies that its task cannot be confined to comparing the words of one language with those of another. If, for instance, we take the trouble to trace the words "post," "telegraph," "dynamite," "paper" through the languages of Europe, we find them all in complete agreement. But this agreement is a matter of no particular importance: we can gather from it no more than the fact that all the languages examined have borrowed the same word. Similar studies can be made in Africa. In all places where Arab culture has come in contact with Africans, a gun is called *bunduki*, and the white man *nasala* or some similar word. These are useful points to know, if we are trying to ascertain how far Arab influence extends; but, so far as linguistic comparison is concerned, it amounts to nothing at all. There is still less object in amusing ourselves by compar-

ing and trying to establish a connection between European, African or Semitic words of similar sound taken at random. It is mere waste of time and labour, unless we find out the laws governing these resemblances, and to work in this way is to begin at the wrong end. Such a method may be compared with that of a botanist who should classify plants by the colour of their blossoms or the size of their leaves. That might be interesting from an artistic point of view, but such a procedure can scarcely advance the cause of science. We have all noticed that language tends to drop old forms — we no longer speak as our grandfathers did — and to develop new ones. Every year brings us new words and new idioms. The fact is that speech is an organism—a living organism, which did not come into being all of a piece, complete once and for all, but which is born, grows and dies, subject, like all living things, to the eternal laws of existence. This, like other living organisms, is capable of reproducing itself and subject to death. We have already spoken of dead and living languages. The rise of new languages from a common source is a process which has taken place in the full light of history, as when Latin, the language of Rome, produced the daughter languages which we call the "Romance": Italian, Spanish, Portuguese, Provençal, French, Roumansch, Ladino, Rumanian. There is no doubt that these languages formerly did not exist, and that they originated from Latin. The metaphor of physical generation is thus justified,

and as we call people related who are descended from the same person, so we may call languages related which are derived from a common stock. In the case just mentioned, the common stock, Latin, is a language known to us. Even if it were not, we should still say that the Romance languages were related to each other, because their similarities are so great. But we should then have to reconstruct the common mother language. Let us apply this to Africa. In all cases where we find not merely occasional coincidences, but a far-reaching similarity between African languages, it is our duty to inquire whether they are not akin. If the resemblances can be proved to occur in accordance with fixed laws we may look on the relationship as established and try to deduce from the languages under examination a hypothetical primitive form whence they might all have originated. Here, however, we must not overlook a factor which may render all laws inoperative—the influence of unrelated languages. The Romance languages are not exclusively derived by direct descent from Latin; they have been exposed to Celtic, German, Slav and Arab influences, which have modified their phonology, their vocabulary, and their grammar. These processes, too, can be proved historically, as we can trace with the utmost precision not only the fundamental language, Latin, but at the same time all these disturbing influences. It is otherwise in Africa. Mention has been made of the Arabic element in African languages. It can be recognised with comparative

ease, but the case is not so clear everywhere, and it has required laborious investigations to find the connections; indeed, in some instances, they are still an open question.

The term "laws" is not here used in the sense of a chemical or physical process, but in that of a rule—not necessarily of universal application—such as we may deduce from intellectual phenomena. It is more especially the German philologist O. Bremer who has called my attention to the fact that changes in language, as a rule, start from a certain definite centre, but that it is often impossible to fix the limits of the area over which they spread. Thus in German the stem-vowel is modified before a diminutive suffix; we say, "das Häuschen," "das Männchen," "das Gänschen." The West and East Prussians do not modify the vowel and say, "das Hauschen," "das Mannchen," "das Ganschen." This is what takes place when language is alive and growing. All these considerations show how the comparative philologist must set to work. It will not do to begin by comparing words, which may be foreign importations, proving nothing, or mere casual coincidences; but he must compare the general structure of the languages. If this corresponds, he can go on to compare their grammatical features in detail. If there is no similarity here, the relationship can only be a very remote one. But if it exists, the next step will be to place the formative elements of the two languages side by side. If these are identical or similar, not merely

in function but also in sound, he may profitably go on to the comparison of the stems forming the fundamental part of the words. For it ought to be obvious that we cannot simply compare words taken from one language with words taken from another. We must strip these words of all incidental prefixes and suffixes and reduce them to the simplest attainable form. If, then, a large number of such stems correspond in the two languages, the relationship may be looked upon as definitely established.

An attempt at gathering a number of African languages into one great group was first made in the south of the continent. Here the German zoologist Lichtenstein (born 1780) recognised that a whole series of languages had certain very striking peculiarities, their substantives being distinguished by means of prefixes. He saw not only that the system of prefix-formation was common to them all, but also that the prefixes themselves appeared to be everywhere virtually identical.

This discovery was the starting point for the investigation of the *Bantu* languages, which has been the chief preoccupation of the students of African linguistics during the last century. It proved on further inquiry that the area of these languages was much larger than Lichtenstein had assumed to be the case. From the limits of the Bushman and Hottentot region it extends beyond the Equator, both on the eastern and western sides of the continent, and forms a gigantic homogeneous

group of closely related tongues, only varied at intervals by scanty remnants of those spoken by the Pygmies and Bushmen, or, in the east and south, by the Hamites and Hottentots.

After a number of separate inquiries had been carried out in various parts of the field, it was a German scholar, the late Dr. Bleek, who first attempted to sum up the results arrived at in his *Comparative Grammar of South African Languages*, a comprehensive work published at Cape Town in 1869. The work has remained incomplete, owing to the premature death of the author, but it was, nevertheless, of fundamental importance. Bleek not only recognised the great extent of the Bantu area with approximate completeness and selected the most typical languages for detailed treatment, but he showed the unity of the grammar by means of the noun, in a wholly convincing manner, and followed a number of word-stems quite accurately through a series of languages.

The value of Bleek's results is to a certain extent diminished by the fact that scientific phonetics were in his day not sufficiently advanced for the difficult work required by African languages, in addition to which the material he had before him was of very unequal value. Some of his predecessors had been more, others less successful in seizing the character of African sounds. In this way it was impossible for him to attain to complete certainty. The enormous distances, moreover, and the primitive means of communication at his disposal, precluded

him from hearing many languages spoken which are easily accessible to-day. When all this is considered, we do not find it surprising that his results occasionally need correction, but rather marvel that he should so often have been right, and have prepared so good a road for his successors. Among many others who, by careful study of a single language, have prepared the way for more accurate knowledge (and who, almost without exception, have been Protestant missionaries), we must mention one man who went to the very root of the problem as no one else had succeeded in doing —Endemann, of the Berlin Missionary Society. He acquired the elements of phonetics, in the first instance, from the well-known *Standard Alphabet* of the Egyptologist Lepsius,[1] and then, with indefatigable zeal and patience, took up the study of Sotho (Sesuto), a language extending over a large part of the Transvaal, and including also the dialects spoken by the Bechwana in the Protectorate, Cape Colony, and Orange Free State, and by natives of Basutoland. His careful observation of sounds led him to the discovery of laws so clear and unerring that the phonetic and grammatical structure of *one* Bantu language was now absolutely certain. His book[2] is a masterpiece of linguistic accuracy, and has not yet been superseded; whoever wishes to gain any real knowledge of Bantu must turn to Endemann. The slight amount of interest in this

[1] London, 1855; second edition, 1863.
[2] *Versuch einer Grammatik des Sotho.* Berlin, 1876.

subject felt by German scholars at the time when his book appeared, may be gauged by the fact that he did not succeed in finding a publisher. In spite of the friendly efforts of Lepsius, he was compelled to defray a great part of the expense of printing out of his own scanty means. The work has not brought its author either fame or profit; on the contrary, it has exposed him to much annoyance. Even now, it is over the head of most readers, as but few can think clearly and precisely enough to profit by it. The average man is deterred by the amount of intellectual labour required, and so a regrettable tendency to avoid and ignore this book has closed the path to fuller knowledge. This must be the reason why no one continued building on Endemann's foundation, and I found in some respects virgin soil when, armed with what I had learnt from him, I set to work on the extensive Bantu literature which had appeared in the meantime. More than twenty years after the publication of his book, I was able to bring him the proof that his theories were not only correct as regards Sotho, but also fitted the facts in other Bantu languages, most of which he scarcely knew even by name. This showed in the most striking way how completely he had gone to the root of the matter. I may mention in passing that Endemann, so far from allowing himself to be embittered or discouraged by disappointment, has continued his studies in spite of difficulties, and has now completed his great work, the *Sotho Dictionary*, which

will remain the foundation of all lexicography in the Bantu area.[1]

But I do not wish to dwell on this champion of Bantu linguistics to the exclusion of other meritorious names.

Here, in the first place, we must refer to Hugo Hahn, the first to supply a grammar and dictionary to the Herero language.[2] Along with him we must mention, as having done excellent work in the same language, Brincker,[3] Kolbe,[4] and Viehe,[5]—missionaries like himself. Thus the number of Bantu grammars written in German increased and multiplied. Brincker's great Herero Dictionary was published with the assistance of the Berlin Academy of Sciences, his manual of Kwanyama[6] and Viehe's Herero Grammar by the Seminary for Oriental Languages at Berlin. Thus scientific circles in Germany gradually began to take an interest in the Bantu languages. In East Africa we have to name in the first place the Englishman Edward Steere, Missionary Bishop of Zanzibar. When Otto Kersten was staying at Zanzibar with his Hamburg friend Ruete, he began, under Steere's tuition, the study of Swahili, that interesting language which to-day is of such importance as the official and trade

[1] Carl Endemann, *Wörterbuch der Sothosprache. Abhandlungen des Hamburgischen Kolonialinstituts*, Bd. vi. Hamburg, 1911.
[2] *Grundzüge einer Grammatik des Herero.* Berlin, 1857.
[3] *Wörterbuch des Otjiherero.* Leipzig, 1886.
[4] *An English-Herero Dictionary.* Cape Town, 1883.
[5] *Grammatik des Otziherero.* Stuttgart and Berlin, 1897.
[6] Stuttgart and Berlin, 1891.

language of East Africa. The German missionaries Krapf and Rebmann—the same to whom we owe such important geographical discoveries in East Africa—had preceded Steere in taking up the languages of that region, and have left us in their books a great abundance of valuable material. The practical Englishman has two advantages over them. His observation of sounds was more accurate (they were both Würtembergers and laboured under phonetic difficulties entailed by their native dialect) and his books are extremely handy and serviceable. I still use them with the greatest advantage. Steere was also the first to take down fables and tales from the mouth of the people, thereby opening for us a way to the understanding of East African life and thought. His *Swahili Tales*, which are accompanied by a good English translation, may be recommended to every lover of folk-lore. Another idea of Steere's led to important consequences in later times. The slave trade was then in full swing at Zanzibar, and people from all possible tribes were brought there from the interior. Steere not only did all he could to put an end to the traffic—we may remember that his grave in Zanzibar Cathedral is on the spot where the whipping-post stood in the old slave market—but he lost no opportunity of profiting by the linguistic facilities it placed within his reach. From the members of these inland tribes he obtained specimens of their vernaculars, and was thus enabled to compile his *Collections towards a Handbook* of Yao (1871), Nyamwezi (1882), Shambala

(Zanzibar, 1867, Magila, 1905), and Makonde (Zanzibar, 1876). These have rendered, and still render, good service to travellers in the countries whence those slaves had come.

Among Steere's successors in Swahili work, one man in particular is pre-eminent—Dr. C. G. Büttner, who lived for some time as a missionary in South-West Africa, issued several publications dealing with the Herero language, and subsequently filled the post of Swahili Lecturer at the Berlin Oriental Seminary. The information on Swahili literature which we owe to him is clearer and more comprehensive than any previously accessible. He not only succeeded in reading Swahili texts written in Arabic characters, but in giving systematic instruction which enabled others to do so too. At that time such instruction was absolutely necessary, as the Arabic character was in universal use, as the German government has only gradually introduced the Latin alphabet for writing Swahili. Büttner also discovered the means of reading the old Swahili poems which were still to be found in East Africa or had been sent home by Krapf many years before, and lay buried in the library of the German Oriental Society at Halle, waiting for a skilled explorer to bring them to light.

In Swahili, it must be remembered, the language of poetry is so very different from that of prose, that it has to be specially acquired at the cost of considerable trouble. Moreover, the Swahili have, like the Germans, borrowed the device of rhyme from

the Arabs, and write epic poems in carefully composed stanzas.

Mention must be made of one more scholar who has done excellent work in the Swahili—the Rev. W. E. Taylor, formerly of the Church Missionary Society, who unfortunately was so far in advance of his contemporaries that his distinguished phonetic and stylistic studies have hardly met with the appreciation they deserve. And yet he has, to a certain extent, done for Swahili what Endemann did for Sotho. In his *African Aphorisms*, a collection of proverbs with notes and illustrations, he has provided us with an excellent means of gaining an insight into African psychology. Following on the work of these pioneers, we have a considerable body of literature, produced by writers of varying ability. Considerations of space prevent my dealing with this in detail, or giving a list of individual Bantu languages, of which about two hundred are known to us. I need only refer to the Zulus[1] and other "Kafirs,"[2] to Uganda, and to Kamerun, and will confine myself to pointing out a few linguistic works of special importance.

Heli Chatelain, of Angola, wrote an excellent grammar of the Mbundu language, and made a very pleasing collection of folk-tales. We owe to him the solution of a problem which had worried every one who tried to learn a Bantu language—the mean-

[1] J. L. Döhne, *A Zulu-Kafir Dictionary*. Cape Town, 1857. J. W. Colenso, *Zulu-English Dictionary*. Pietermaritzburg, 1905 (4th ed.).

[2] A. Kropf, *A Kaffir-English Dictionary*. Lovedale, 1899.

ing of place names. They are very numerous, and it is difficult to get at their signification; but since Heli Chatelain's time we have been in possession of the secret.

Alfred Saker, a Baptist missionary in Kamerun, was the first to reduce to writing the coast language —Duala—of the German colony; while we are indebted to W. Holman Bentley, a missionary of the same society, for a very full Dictionary and Grammar of the Kongo language (London, 1887). It may be asked with some surprise: Is it only Protestant missionaries who have worked at these languages? Well, we began by mentioning Bleek and Lichtenstein, who were not missionaries. I myself, without being a missionary, have studied these languages, and the same is true of some others who have worked at them. The government schoolmasters in the German colonies of East and West Africa are specially deserving of recognition. We owe to Christaller a good Duala grammar,[1] and to Blank and others a widely circulated Swahili newspaper (the *Kiongozi*, appearing at Tanga). But in general it is correct to state that, without the work of Protestant missions, our data would be almost confined to a few scanty notes made by travellers.

The contributions of the Roman Church to this branch of learning are of very moderate extent. The oldest of its missions—that in Portuguese West Africa—produced some works among which I may mention Brusciotto's Kongo Grammar and Canne-

[1] Basel, 1892.

cattim's Mbundu Dictionary. But Brusciotto, at least, had been completely forgotten, when his work was once more made known through the exertions of English friends of Africa.[1]

In Pongwe (Gabun), in Swahili, and in the languages of Portuguese East Africa, some works of considerable extent have in recent times been executed by Roman Catholic missionaries, as well as various minor ones which may be passed over here. One which deserves special notice is the *Comparative Grammar of South African Bantu Languages* (London, 1891), written in English by Father Torrend, a Jesuit missionary in Portuguese East Africa. It contains many valuable notes, but, as the author has not observed and recorded the sounds on the principles of exact phonetics followed by Endemann, he has not attained to complete clearness. Many of his comparisons are quite correct, many are doubtful, and some obviously mistaken. I venture to hope that in my Phonology[2] and in my Comparative Grammar[3] I have laid a sounder foundation for further research.

The grouping of the languages spoken northward of the Bantu area was a much longer and more difficult task. I have suggested for this group the name of "Sudan languages," and hope that it will

[1] *Grammar of the Congo Language as spoken Two Hundred Years Ago.* Translated from the Latin of Brusciotto. Edited by H. Grattan Guinness, F.R.G.S. London, 1882.

[2] *Grundriss einer Lautlehre der Bantusprachen.* Berlin, 1910 (2nd ed.).

[3] *Grundzüge einer vergleichenden Grammatik der Bantusprachen.* Berlin, 1906.

gain acceptance. After I had set to work on these languages, I soon became convinced that some community of structure must sooner or later be discovered in them. But it is a long step from the attainment of such a conviction, which faintly dawns on the imagination, illuminated now and then by flashes of insight, to a full comprehension of the matter. After taking the first steps in this direction, I have transferred the work to the most competent scholar in Germany, Professor Diedrich Westermann, formerly a missionary of the North German Society in Togoland, and now holding an appointment at the Berlin Oriental Seminary. Westermann has successfully carried out the delicate and difficult work of proving that one great linguistic group extends from Upper Guinea right across the continent, traces of it being found even in Abyssinia and Nubia. The work in which he has set forth the results of his inquiry and which marks a new epoch in the history of the subject,[1] is the publication with which the Hamburg Colonial Institute entered the field of linguistics. Westermann began his studies with the Ewe[2] language on the Gold Coast, and not only made very minute phonetic observations but provided a Grammar (Berlin, 1906) and Dictionary (Berlin, 1905) as practical helps to the learning of the language. In Ewe itself he had been supplied with excellent

[1] *Die Sudansprachen.* Hamburg, 1911.

[2] This is adopted as the current spelling, though the sound represented by *w* is really " bilabial *v*."

material by the previous labours of his colleagues in the mission, among whom Spieth has rendered especial service by his great compilation, *The Ewe Tribes* (Berlin, 1906). This book, consisting of native texts with a complete German translation, is invaluable to all officials, ethnographers and students of comparative religion in Togo.

In other languages, too, important preliminary work has been done. In the first place we must mention the missionary Christaller, who prepared the way for subsequent investigations by his publications on Tshi (Twi) spoken on the Gold Coast, and by his comparative work. Dr. Koelle produced a Grammar of Vai,[1] a language remarkable for possessing a peculiar syllabic character, invented by a native; a fact which is not without interest as bearing on the origin of writing. In Western, as in Eastern Africa, the slave-trade has been forced into the service of philology. The Church Missionary Society sent the German missionary Koelle already mentioned to Sierra Leone, in order to take down the languages spoken by the liberated slaves who had been brought there. He noted down numerals and other words, as well as short sentences in 200 languages, and published the collection in his *Polyglotta Africana* (London, 1854). He did not, however, content himself with merely noting the words, but questioned his informants as to their birthplaces and the route followed thence to the coast where they were embarked on board the

[1] London, 1854.

slaveship. These descriptions were of the highest scientific value, because in many cases they supplied the first information as to languages, countries, towns and rivers. Many of the statements are to-day quite intelligible, and have been confirmed by subsequent research, others still await explanation. As might be expected, Koelle's notes are not confined to the Sudan region, as the slaves were also drawn from the Bantu area, some even from East Africa. But they were, and are, of special importance in connection with the Sudan. Besides this we owe to him a very detailed Kanuri Grammar, more thorough than the information collected by the traveller Barth, though the latter remained for some time in Bornu, which Koelle never visited.

It is impossible here to enumerate all who have collaborated in this great work; but I must just glance at some of the more prominent: the French general, Faidherbe, who distinguished himself in the war of 1870, and who had previously been Governor of the Senegal; Bishop Crowther, the first negro admitted to the Anglican episcopate; the Scotsman Goldie, author of a Dictionary of the Efik language of Calabar, and Professor Mitterrutzner, who produced a very valuable work on the Dinka language, obtaining his materials from a Dinka boy brought to Europe from the Upper Nile by the Roman Catholic missionaries. We must also remember some German scholars who have worked at these languages: the illustrious Professor Steinthal of Berlin, who wrote an excellent book on the Mande

language, and Lepsius, who has already been referred to, the founder of the Egyptian Museum at Berlin. His Nuba Grammar (Berlin, 1880) is much read, especially for the sake of the introduction, which contains his attempt—premature, it is true—at a classification of all African languages. But the most complete and thorough work done by any linguist was that of the Egyptologist, Leo Reinisch, still living at Vienna, who treated not only Nuba (Vienna, 1879), but several other languages belonging to the same group, and already had some premonition of the truth that the structure of the Sudan languages rests on monosyllabic roots. I am disposed to value his services very highly, though differing from him as regards the classification of languages, since he does not believe that a definite line can be drawn between the speech of the Sudan negroes and that of the light-coloured North African tribes. Thus we have before us a respectable body of scientific work, which may be expected, moreover, to become important from an historical point of view through the investigation of Ancient Nubian. Next we have to consider the speech of those small-statured tribes, the Pygmies, who are found scattered here and there in the Sudanese and Bantu areas, leading a secluded life as hunters. The existing information as to their language is scanty and uncertain. In company with Professor Westermann, I have questioned some Pygmies from the Ituri as to their language, and found that, judging by the specimens obtained, it undoubtedly belongs

to the Sudanese group. It may be that this is only an acquired language, and that they have lost their own; but I do not think it impossible that the relationship is fundamental, in which case I should consider the Pygmy languages to be the oldest form of speech preserved to us in Africa. Some Pygmy tribes in East Africa appear to have in their language the strange clicks which we meet with again among the Bushmen of South Africa. Perhaps there is some racial connection. In any case, the Bushman languages in South Africa are apparently very similar in structure to the Sudan languages. Unfortunately our information is still extremely scanty. There has never yet been a mission among the Bushmen—in fact it would be impossible to carry out such a project. The few scattered people who find their way to mission stations of course understand the language spoken at the latter. Thus it happens that no missionary has found it necessary to make himself familiar with their speech; and, unfortunately, none has felt sufficient interest in general philology to take up the problem from that point of view.[1] Dr. H. Werner, head physician at the Hamburg Tropical Hospital, is the author of an excellent essay on the Bushmen, and my colleague, Dr. Passarge,[2] has devoted a larger work to the same subject. But the fullest investigations were made by the late Dr. Bleek, to whose work in other

[1] Since the above was written, a sketch of Bushman Grammar, by H. Vedder, has been published in the first volume of the *Zeitschrift für Kolonialsprachen*.

[2] *Die Buschmänner der Kalahari*. Berlin, 1907.

directions I have already referred. Some of his Bushman studies have been posthumously published by his sister-in-law, Miss Lucy Lloyd,[1] who has devoted many years to the same kind of work. These researches are of incalculable value both to philologists and anthropologists.

If, as I think, the Pygmies and Bushmen are the oldest inhabitants of Africa, the dwellers in the lands north of the Sahara are probably the latest immigrants. They are physically quite different from all other Africans. Their hair is not woolly, but curly, like that of Europeans, and in conformation of skull and body they resemble Europeans and Arabs, not negroes. According to the old popular scheme of classification, we should say: "They belong to the white Caucasian race," though in some cases their skins have become darker in colour through an admixture of Negro blood. I said just now that there is no essential difference between them and Arabs or Europeans: this implies that I am speaking of tribes which have not immigrated from Asia or Europe within historic times. We know that Phœnicians, Greeks and Romans penetrated into Africa before the Christian era; that, at a later time, the Vandals invaded it, tribes from Southern Arabia colonised Abyssinia, and, finally, the Muhammadan hosts swept across the continent from Arabia to the Pillars of Hercules, and even crossed into Spain. Thus there have been periods in the history of North Africa when Greek, Latin

[1] *Specimens of Bushman Folk-Lore.* London, 1911.

and Vandal sounds were heard there, till at last Semitic speech, having long ago made its entry into Abyssinia, passed into the territories bordering on the Mediterranean. A great part of Africa is even to this day under the same influence. In Abyssinia a series of Semitic dialects were formed which are still living. Arabic has in many districts replaced the vernacular, in others it has itself been influenced by it, chiefly, as might be expected, in the Sudan and in the West. On the other hand, its strong civilising and religious influence has perceptibly affected the vocabulary of many African languages. But, apart from these European and Semitic tongues, there is a great body of speech which resembles in structure the other languages spoken by the Caucasian race, but does not entirely coincide with them. If Ancient Egyptian is not (as some have supposed) a greatly altered Semitic language, it belongs to this class.

This was the speech of the Pharaohs who built the pyramids and whose edicts and proclamations can be read by modern scholars. Libyan, like Egyptian, has its own ancient written character, so that we are no longer in the domain of entirely unwritten languages. We call this whole group, in contrast to the Semitic, "Hamitic Languages"; we must, however, think of them as spoken not by negroes, but by people who, at most, have been exposed to some amount of negro influence. We find languages of this group in the West, spoken by the Berber tribes of Morocco and the adjacent countries. They have been studied chiefly by M.

René Basset in France, and by Professor Stumme of Leipzig. In the East, Leo Reinisch has done the lion's share of the work. He has produced a number of monographs dealing with these languages; the best being that on Somali. Galla was taken up by the Bavarian Tutschek, who studied it with the help of some native boys brought to Europe. Of the tribes living further south, who have a stronger infusion of Negro blood, I may mention the Bari, Nandi, and Masai, who are all related to one another. The last-named for a time attracted general attention, when the late Captain Merker thought he had discovered a connection between them and the Semites. The southernmost of the Hamitic languages are spoken in German East Africa, in the depression surrounding Lakes Manyara and Eyasi. Here we find them strangely altered by clicks probably borrowed from Pygmy tribes. The whole matter is still very obscure and awaits further investigation. If our provisional hypothesis is borne out by the facts, we have another forcible argument in favour of an assertion made long ago by Lepsius, which I believe to be correct, viz., that the Hottentots in South Africa are racially akin to the Hamites and have only picked up their strange clicks from the Bushmen.[1]

Our knowledge of the Hottentot dialects is very unequal. The philosopher Leibniz himself paid a

[1] This view was also maintained by Bleek and by two other scholars who arrived at it independently about the same time, Adamson and Logan.

considerable amount of attention to that spoken at the Cape, which has since died out. As to those of the Griqua and Korana we have very scanty and ill-authenticated notices, but we are more fully informed about the Nama spoken in German South-West Africa. In this connection the first mention is due to the missionary Krönlein, who laid the foundation by his book, *Der Sprachschatz der Khoikhoin*, printed at Berlin in 1889 by the help of the German Colonial Society. Among more recent writers we must name the zoologist, Leonhard Schultze, of Jena, who has produced a valuable encyclopædic work on the country and people.[1] Professor Westermann and I have collaborated in a tentative grammar of the language.[2] The only comparative work of any value on the Hottentot languages is that done by Bleek. After this excursion to the southern extremity of the continent, we must turn once more to the north, in order to notice two languages of great interest in connection with commerce, colonial administration and science. One of these is Hausa, the *lingua franca* of the Western Sudan, the other Ful. Both have been repeatedly studied by missionaries and others; the latest book on Ful has been written by Westermann. This language may prove to be the bridge between the Hamitic and the Bantu tongues, and is therefore of special importance to comparative philologists. I think, however,

[1] *Aus Namaland und Kalahari.* Jena, 1907.
[2] *Lehrbücher des Seminars für Orientalische Sprachen*, vol. xxiii. Berlin, 1909.

that it will be found to have even a higher significance, as the key to the structure of the Hamitic languages, and it will throw light on many obscure points in comparative philology. The great Austrian linguist, Friedrich Müller, had not yet recognised the connection between Ful and the Hamitic languages (which is clear to us to-day, thanks chiefly to Schleicher's Somali studies), and for this reason thought it necessary to constitute a separate "Nuba-Fula Group," which has now disappeared from the classification of African languages. Nubian and its cognate tongues belong to the Sudan, Ful and the idioms related to it to the Hamitic division. The maps drawn up in accordance with Müller's scheme have therefore to be corrected in this particular.

Where there is such variety of idiom *mixed forms* may be expected to occur. It is quite impossible to give even a cursory review of these within the space at our disposal. It is obvious, moreover, that foreign influences are not absent. We have already mentioned borrowings from Arabic, but Persian and many Indian words have also found their way into the vocabulary. Madagascar was colonised by Malays, and it is quite possible that linguists may yet point out Malay influence in East Africa, as ethnographers have already done. And, last of all, the European nations arrived and brought their languages with them.



LECTURE III

THE STUDY OF SOUNDS IN AFRICA AND ITS RELATION TO GENERAL PHONETICS

WE are in a certain sense indebted for the science of phonetics to people who cannot speak at all—to the deaf and dumb. It seems quite easy to teach new sounds to a person who can hear and speak—the teacher pronounces the words and the pupil repeats them. Any one who has had practical experience knows, it is true, that the matter is not so simple as it seems, but the notion that it is in all cases possible to repeat the exact sounds as pronounced to one, is, in general, so prevalent that no one thinks it necessary to consider the question any further. Everyday experience shows that inability to utter the sounds of a foreign language does not depend on nationality or on any anatomical difference in the organs of speech, but arises from other causes. Thus, we are precluded from assuming that the structure of the vocal organs in Africans is so dissimilar from our own that it will be impossible for us to pronounce African sounds correctly. The children of missionaries and settlers in Africa, who have from the first been surrounded by natives, speak the native language with exactly the same

accent as the people themselves. The difference of race, on which so much stress is laid by some, cannot here be taken into account as a determining factor.

But the futility of all such considerations becomes apparent as soon as we apply them to the instruction of the deaf and dumb. Here the teacher's pronunciation is of no use, since the pupil cannot hear it. There is no other course open to us than a careful examination of what really constitutes speech, if we want to make it plain to people who cannot hear. This necessity gives rise to the science of Phonetics which plays so large a part in Modern Language teaching. The necessity of phonetics becomes evident to us in proportion as we are able to put ourselves in the position of the deaf and dumb. Any one who has learnt French or German, after a fashion, at school, without giving any particular heed to the pronunciation, will prove to be virtually deaf and dumb the first time he finds himself among French or German people who are ignorant of English. For he understands nothing of what is being spoken around him, and what he tries to say is not understood by his hearers. But, unless he be exceptionally dense, he will, sooner or later, be able to seize something familiar amid the torrent of strange sounds which overwhelms him, and will gradually begin to understand a word here and there, till, step by step, one mystery after another becomes clear to him. In the same slow way he will gradually learn to speak. But the

difficulty is far greater to one entering a region of speech more alien to him, as regards both linguistic affinity and culture-tradition, than either France or Germany can be. In this case he will continue to occupy the position of a deaf-mute for a far longer period, and, without an exceptional expenditure of energy, may live in a foreign country ten years or more without learning to speak or understand the language. This is why the science of phonetics is so important in the teaching of languages, especially unwritten ones. It is possible by its help to loosen the tongues of those condemned to temporary deaf-mutism.

The mere imitation of foreign sounds when pronounced by the teacher presents two opposite difficulties, both of which arise only from the different degrees in which these sounds deviate from those of our mother tongue. One sound puzzles us because it is very similar to an English sound, and another because it is very dissimilar. In grammars of African languages the learner is often directed to pronounce some sounds, e.g. *w*, *k*, *r*, "as in German." This does not help us much, for the Germans differ among themselves in the pronunciation of these letters. Some pronounce *w* (=English *v*) by bringing the lower lip into contact with the upper teeth (labio-dental articulation), others by placing the lips close together (bilabial articulation). If, now, any one hears a *w*-sound in Africa, he will, in reproducing it, form not the sound he has heard, but the one he is accustomed

to at home. His nerves and muscles are habituated to the movements necessary for producing the *w* he knows, and he will not even attempt to make the change. He carries out these movements in complete unconsciousness of what he does. It is not of the slightest use to pronounce words to him. In the most favourable circumstances, he hears that the word uttered differs from his own pronunciation, but being himself ignorant how he produces the sound, he cannot ascertain wherein the deviation consists.

The only thing to be done is to show the learner how he has hitherto been in the habit of forming the sound. The teacher makes him feel his lips and look at himself in a mirror. He pronounces the sound to him, requiring him to attend, not to the sound with his ear, but to the movement of the lips with his eye. When he understands how the known sound is formed, the teacher shows him the formation of the unknown one, till he can appreciate the difference. Then he must try to imitate it, and when he has successfully accomplished this, he will in the end be able to hear it also. This troublesome process is the only certain way of attaining the end. People ask, " Is it not better simply to practise? " Yes, but *what* are you to practise? Practice is indeed necessary, but only after careful and persevering imitation of the right sound. Practice without this indispensable preliminary will only result in the acquisition of rooted bad habits. No piano-player attains facility otherwise than by first

slowly learning the right sequence of notes and then impressing it on his mind by practice.

The mistakes made in this way arise from too great familiarity with a very similar sound, so that, without great care, one is apt to fall back into the accustomed pronunciation. I have known students of African languages who never found out the difference between the two *w* (=*v*) sounds. Such persons, of course, will never be able to distinguish words in which these two sounds occur from each other; *e.g.* in Ewe [1] (Togo), v^1u, "a hole," [2] from v^2u, "blood"; v^1o, "be finished," from v^2o, "python"; ev^1e, "two," from ev^2e, "the Ewe country." [3]

The matter is still further complicated by the fact that many African languages also possess an *f* pronounced with both lips, unlike our *f* which is formed by the lower lip in contact with the upper teeth. This difficulty applies especially to Germans who pronounce *w* with both lips, but *f* with the teeth and one lip. Ewe possesses not only the two *v* sounds, but also the two *f* sounds, and many a learner has come to grief over this pitfall, e.g. $af^1\acute{e}$, "dirt," and $af^2\acute{e}$, "house"; f^1o, "suddenly," and f^2o, "to strike"; $f^1\acute{u}$, "hair," and $f^2\acute{u}$, "bone." [4]

Similar difficulties are found in a number of languages with the *t* and *d* sounds. It is well known that some Germans declare they can hear no differ-

[1] The *w* of the usual spelling here represents "bilabial *v*."

[2] In International Phonetic script, *vu*, ʋu, *vo*, ʋo, *eve*, *eʋe*.

[3] v^1, f^1 are here used to denote the labio-dental, v^2, f^2 the bilabial sound. The accent indicates that the vowel is pronounced with the "high tone."

[4] International Phonetic: *afe*, *aɸe*, *fo*, ɸo, *fu*, ɸu.

ence between *t* and *d*. Now, there are some African languages with four *t*'s and two *d*'s, which must be carefully distinguished. The first thing here is to get the beginner to notice in what part of his mouth he produces the *d* or *t* sound, and then to show him that he can stretch the tongue forward as far as the teeth, or can bend it back to the palate, and can in both cases still produce a *t* or *d*. This is comparatively easy to understand. It is a little more difficult to make clear that *t* can be pronounced either with or without a strong aspiration following it. Here the sense of touch must be called into requisition, where that of hearing is insufficient. Finally, the difference between *t* and *d* can be demonstrated as is done in the case of deaf-mutes by placing the learner's finger on the glottis till he can feel the vibration of the vocal chords. In this way he can at last be brought to hear the difference —always provided that he is willing to do so. For we find that most people unable to hear the difference are decidedly reluctant to be shown it. They think the distinction quite superfluous—a mere orthographic fancy, without any basis in real speech.

The case is the same with the *s* sounds; in English we cannot disregard the difference between *race* and *raise, cease* and *seize,* and in African languages, as a rule, words containing a voiced (soft) *s* (=*z*) have no connection with otherwise similar words containing voiceless (hard) *s*; so that unless we bear this distinction in mind, it is impossible to make ourselves understood.

It becomes still more difficult when, in the foreign language, we have to imitate a sound which in our own is considered wrong or defective. Thus in English we have lisped sounds, viz. *th* in *thin* and *this*, which in German are only heard from imperfect speakers. African languages more especially abound in *s* sounds which among us would be looked on as symptoms of defective articulation. It is certain, however, that they are not pathological in character, for the language in question has, side by side with these, other *s* sounds which coincide with ours. How these sounds originated in Africa is still an unsolved problem. Indeed, for normal speakers, they belong to the second group of sounds —those which deviate so markedly from our own as to make it difficult for us to seize them. I will therefore pass on to consider this group.

I had the pleasure, during several successive winters at Berlin, of arranging a phonetic conference of a somewhat novel kind, in which the foremost German phonetician, Eduard Sievers of Leipzig, took part, as well as Professor Gutzmann, the well-known Berlin physiologist and orthoepist. Besides these we had a set of collaborators acquainted with a number of very different European, Asiatic and African languages and, as hearers, a number of students and missionaries. We devoted our attention chiefly to the investigation of such sounds as do not occur in European languages.

An Ewe boy gave us the opportunity of observing the peculiar labio-velar consonants, sounds pro-

duced by placing the organs in the position to pronounce *k* and then saying *p*, or getting ready to say *g* and saying *b*. We were also able to introduce the son of a missionary from North Transvaal, who knew Venda, a language possessing sounds midway between *s* and *f*. We had great trouble over the " glottal-stop " sounds, of which one was sometimes disposed to think that there could be no such thing, and which nevertheless do exist. With Gutzmann's help we succeeded in fixing the whispered sounds in Abyssinian languages, which had previously been a great perplexity. They sound as if the speaker were going to produce a further sound which does not come off.

But the culminating point of these unknown sounds are the clicks. The latest investigations have proved that they are to be found in a small area in East Africa, but apart from this they are to be sought among the Bushman, Hottentot and Kafir tribes of South Africa. These peculiar sounds probably originated with the Bushmen, in whose language they occur most frequently. The Hottentots have clicks produced at four different places of articulation, which, however, can be continued in a number of different ways—with a simple glottal stop, with a strong aspirate, with friction (*i.e.* vibration of the vocal chords), with voice and with a nasal. Thus some philologists distinguish twenty and others twenty-four clicks. These sounds have penetrated into Kafir as a foreign element. Here we distinguish only three places of

articulation, but several modifications. The clicks have caused much perplexity to phoneticians. Lepsius thought that they were produced when drawing in the breath, and therefore called them "inspirates," as I also formerly did. We know now that they are produced by a sucking movement of the tongue, with which the current of air from the lungs has nothing to do. We can quite well send a current of air out through the nose and click at the same time, which would be impossible if clicks were produced by inhalation, as of course no one can breathe in and out at the same time.

I might dwell on various other strange sounds; but the above will be sufficient to show that here we have in fact to deal with matters which may well furnish serious occupation even to an expert phonetician.

I will now proceed to glance at the *sound-shiftings* which we can discover to have taken place in African languages. The systematic observation of sound-shiftings in Germany began with the discovery of Grimm's Law. We know that the voiceless stops of, *e.g.*, Latin, in cognate words of Gothic, Low German, English and Norse, regularly become aspirates, which then pass into continuants. In High German we find voiced stops in the corresponding positions. Thus the Latin *tres* corresponds with the English *three* and the German *drei*. Or, if we begin in Latin with another group of sounds, we get different sounds in English and German: Latin *duo*, English *two*, German *zwei;* Latin *decem*, English

ten, German *zehn*. Bleek already saw that Grimm's Law holds good for the Bantu languages also, and began to formulate rules for its application. I have examined these laws with tolerable completeness in my various publications, for the phonetically best-known Bantu language—Sotho—and also for the principal languages of the German colonies: Swahili, Duala, Herero, as well as Konde, Sango, Venda, Kafir, Shambala, Nyamwezi and its cognate Sukuma Bondei, Zigula, Nyika and the closely related Digo, Pokomo, Dzalamo, Yao and Makua—that is, for eighteen languages and dialects. This is only a small part of the work to be done; but it affords a proof that the phenomena occur in obedience to fixed laws. Where one language has *p*, a second regularly has *f* and a third *v* or even *b*. Where one has *t*, a second has *r* and a third *l*. How does this happen? The phenomenon as it appears in Europe has been much debated, and all sorts of strange and sometimes fantastic explanations have been suggested. For this reason it is an extremely important fact that we should have before us in Africa such an abundant supply of materials, containing more modifications and transition forms than we can find in European speech. Wundt [1] calls our attention to a fact which is certainly worth consideration, viz. that in towns and with increased frequency of communication, people speak more and faster than in the country, or where intercourse is less frequent.

[1] *Völkerpsychologie*, vol. I. 1, pp. 488-511.

It is obvious that in rapid speech sounds are uttered less distinctly and even tend to drop out altogether. Thus in Swahili, which being a coast and trade language is spoken very fast, *l* tends to drop out after the accented syllable. In the same way *u* has usually dropped out after *m*, as the two sounds, being both labials, are very similar. People no longer say *muti*, "the tree," but *mti*, just as we, while still writing *lesson*, pronounce *les'n*. Thus the Swahili even sometimes say *M'sa* for *Musa* (=*Moses*). Wundt's explanation, however, does not cover all the facts. For instance, *p* is always distinctly sounded in Swahili, but *h* is frequently substituted for it in the languages of the interior. But *h* is certainly the less stable sound, and one would therefore expect to find it on the coast. Yet this is not the case.

From another point of view, sound-shiftings have been connected with the custom found among some tribes, of mutilating the lips and teeth.[1] In these cases it is obvious that some sounds cannot be so well articulated as when the organs of speech are all intact, and consequently a particular kind of articulation caused by the mutilation becomes common, and is kept up, even after the custom has fallen into desuetude. This theory, too, is found to fit the facts in individual cases. Thus the Yao women are in the habit of wearing a large wooden disc in the upper lip, and cannot pronounce *f*. As

[1] *Cf.* G. L. Cleve, "Die Lippenlaute der Bantu," in *Zeitschrift für Ethnologie* (1903), No. 5, pp. 681-703.

the children learn to speak from the women, the *f* sound has disappeared from the language, and has only been reintroduced through borrowed words. But this theory, again, is insufficient to explain all the facts, and we must seek yet other causes for the strange permutations which occur.

It is a remarkable fact, which may be observed, not only in African languages, but in some German dialects, that sounds are modified by stress, or dynamic accent. The lengthening of vowels under the influence of the accent is a process very familiar in English and German, and it also takes place in African speech. But the case is somewhat different when not only the vowels but the consonants are thus modified, and this, too, takes place in English and German as well as in African languages.

K in some African languages is strongly aspirated when it occurs in an accented syllable, but not elsewhere. As the unaspirated sound is very widely spread, we may probably assume that it is the older, and that the strongly aspirated pronunciation is of later date. It arises, in my opinion, from the greater amount of breath expended on the accented syllable.[1] In fact, the root-syllable in these languages has a special accent of its own. Thus people grew accustomed to aspirate this syllable strongly, and the new pronunciation gradually spread from it to the other syllables. In Konde, for instance, *k* has a different sound in accented and in unaccented syllables. But *p* and *t* are always strongly aspirated.

[1] *Cf.* the Irish pronunciation of *p*, *b*, *t*, *d*, etc.

This is the same process as we find in Greek, where φ (*ph*), originally an aspirated *p*, came to be sounded *f*. In the same way the Hindi *ph* is the Persian *f*. *P* was followed, first by *h*, then by a sound resembling *f*, and at last only the *f* remained. Thus the Latin *pilum* became the German *pfeil*, which by many people nowadays is simply pronounced *feil*. In the same way, in African languages, *t* becomes first *th* and then *r*, while *k* by way of *kh* and *k*χ becomes χ (=Scottish *ch* in "loch"). In other languages no fricative sounds are introduced, but *k*, *t*, *p* are entirely lost and only *h* is left. Thus, for instance, *h* is substituted for *k* by the Venda (North Transvaal), for *t* by the Digo, Giryama and Pokomo, and for *p* by the Nyamwezi and other East Africans. Lastly, we find that even this *h* has disappeared, so that nothing is left of the original sound: the greater expenditure of breath has destroyed it, just as a delicate colour may be destroyed by too much light, or the note of an organ-pipe by too much wind. Quite a different process is at work when voiced sounds arise from voiceless ones. If we sound a voiceless consonant, *e.g.* χ, between two vowels, it easily happens that the vibration of the vocal chords continues from one vowel to the other. This is why French *s* is voiceless at the beginning of a word or after a consonant, but voiced after a vowel. Just so the Sotho pronounces his χ*a* as γ*a* [1] when it is preceded by a vowel. Only in the accented syllable

[1] γ is the voiced equivalent of χ, heard in the German *Tage*, when *g* is not pronounced as in *go*.

is the χ retained: the strong breath, as might be expected, has a preservative influence on the sound.

Similarly, original *p* becomes *b* and *v*, and original *t* becomes *l*. When these changes, as in Sotho, have once established themselves in the tonic syllable, they spread to others and become the rule. This is found to be the case in Somali, where even imported words are treated in the same way. Here too, in the end, the sound becomes so slight that it is lost in the utterance of the vowel following it. The disappearance of the sound has a different cause from that at work in the one just mentioned. A colour outshone by other colours, a note drowned by louder notes, are no longer perceptible. For a time such a sound keeps its place in the people's consciousness and reappears in solemn speech or when archaic expressions are deliberately used; but gradually it drops out of use altogether.

We can scarcely hope to ascertain at this time of day why it is that one language has taken the former way and another the latter. But we shall probably have to take into account as serious determining factors the habitual occupations of the people in question and the degree to which they are subjected to the influence of foreign languages. As the people on the Scottish border differ in speech from those living on the frontier of Wales, the speech of the African, too, will vary according as the influence of the negro or of the lighter-coloured race predominates in his descent. The husbandman, the hunter, the fisherman, and the

shepherd will all express in their way of speaking the mental conditions habitual to them. And as in Africa these occupations are followed, not by men belonging to distinct professions, but by whole tribes, they are apt to impress themselves on language much more markedly than they would among ourselves, though even we can, to a certain extent, distinguish by his talk the sailor, the clergyman, the officer or the farmer. In Africa, descent and occupation usually coincide; a choice of profession is unknown, the son of a herdsman becoming a herdsman as a matter of course, just as the husbandman's son becomes a husbandman. In any case the study of these social conditions will furnish an important contribution to the question as to how these sound-shiftings arose.

But apart from them, we have made a considerable collection of important phonetic laws in Africa, which may be summed up in the main as laws of assimilation and dissimilation.

The laws of assimilation for vowels are extremely interesting and remarkably similar to processes with which we are already familiar, as, for instance, when *a* becomes *e* through being followed by *i*. The *e* in *men, French* (cf. *man, France*) is due to *i* having formerly been present in the second syllable. The chief reason for the change is that the tongue keeps the position for one vowel when pronouncing the other, so that *e* or *o* is followed by *e*, but *i* or *u* by *i*. Still more remarkable and more easily overlooked by the beginner are the modifications produced in

a consonant by the vowel following it. We are accustomed to something of the sort in Italian and French, where *c* and *g* have different sounds before *e*, *i*, and before *a*, *o*, and *u*. In African languages, too, *i* exercises a strong modifying influence on the preceding consonant: indeed, there are two *i* sounds (as in Polish), which modify the preceding consonant in different ways.

Still stranger, and, in some respects, more foreign to European habits, are the modifications produced by the vowel *u*. If you have ever paid any attention to the position of your tongue when forming this vowel, you will be aware that the back of the tongue is raised. This is similar to its position in sounding *g*, which explains why, for instance, a German *w* may correspond to a French *g*, as in *Wilhelm=Guillaume*. The transition from *g* to *j* (=*y*) is familiar to every North German.[1] Changes similar to these are very common in Africa. Instead of *mwana=mu-ana*, "child," we find *ŋwana*;[2] instead of *mbwa*, "dog," *mbɣa*,[3] *mbja*; and finally, *nja* (as in Zulu). *Pwa*, "to ebb" (of the tide), becomes *fχa*, *fsha*, and in some languages, *tsha*.

At the same time we have another *u* sound, for which the lips are very much rounded, and this has the effect of turning several different sounds into *f* or *v*. For some time I found the statement that

[1] Compare also German *gelb* and English *yellow*, German *Garn* and English *yarn*.

[2] Sometimes written *ng'wana* (*ng* as in *sing*). In the International Phonetic script the word would be written *ŋwana*.

[3] In the International Phonetic script *mbɢa*.

ku may become *fu* received with incredulity, although it was quite certain on etymological grounds. Now we find that the Nyamwezi people in East Africa have been obliging enough to preserve in their speech the transition forms between *ku* and *fu*, viz. *kwu*, *kfu*. This makes the process perfectly clear.

A process which is very familiar to us and has largely modified the sounds of our own language, is the combination of consonants. But this is not of frequent occurrence in the languages of the black races—I mean those belonging to the Bantu and Sudanian families. These in general follow the rule that every consonant is followed by its vowel: a close syllable—that is, one ending in a consonant, is unknown, so that no combination of consonants can take place. But there is one kind of consonant designated by the Greek grammarians as semivowels, and considered as full vowels by modern phoneticians, viz. *l*, *m*, *n*, *r*. The sounds *m* and *n* more especially, but sometimes also *l* and *r*, are frequently pronounced so like vowels as to cause the disappearance of the vowel following them, *e.g.* *u* after *m*, which resembles it in place of articulation, and *i* after *n*, which is similarly related to it. In this way *m* and *n* come to stand immediately before the following consonant and occasion all sorts of changes. If any one is about to utter two different sounds in combination, he finds himself in presence of an untried task, which so far embarrasses him that while producing the first sound he is already

thinking of the second, or when producing the second is still thinking of the first. When, therefore, he is going to pronounce *n* before *p*, his mouth already takes the position for *p* while still articulating *n*. Thus he utters *m* instead of *n*, cf. the English *im-possible*, not *in-possible* as it would have been but for *n* being followed by a labial. Frequently, however, the speaker modifies the sounds still further. In sounding *m* or *n*, his vocal chords are set vibrating. This should not take place in the subsequent *p* or *t* sound. But his attention is still fixed on the earlier sound, and the vibration of the vocal chords is kept up. Thus we get *mb* for *mp* and *nd* instead of *nt*. These phonetic processes are very numerous, and they vary greatly in different languages. We have also to be very careful in distinguishing the combinations of sound originating in a primitive *mu* from those arising out of primitive *ni*. These laws, and the laws of permutation previously referred to, are the most important features in each individual Bantu language, and it is advisable for every one who has to do with several such languages to master the rules arising out of the application of these laws, as otherwise he will scarcely attain to complete certainty in the use of words.

I have still to mention the very remarkable law of dissimilation, discovered in Nyamwezi by the Rev. Mr. Dahl, and therefore called by me " Dahl's Law." [1] Those of us who know Greek are aware

[1] See *Zeitschrift der deutschen morgenländischen Gesellschaft*, vol. lvii. p. 302.

that in that language two aspirates cannot follow one another. φέυγω, "to flee," makes its perfect πέφευγα, not φέφευγα; the "one full of grace" is not χεχαρισμένη, but κεχαρισμένη. Similarly, in Nyamwezi, one aspirate cannot follow another, but the first of them becomes a voiced stop, so that instead of *-thathu* they say *-dathu;* for *phitha, bitha,* for *ithikha, idikha,* etc. The modification, of course, arises from the fact that the two sounds are too much alike, and one of them is instinctively modified for fear of a mistake. Two strongly aspirated sounds in succession, moreover, are difficult to pronounce for physiological reasons, so the first is pronounced with a smooth breathing, and the rough breathing only occurs in the second. This is the point of view represented in Greek. Nyamwezi has gone one step further, by voicing the first sound and thus making the dissimilation complete.

Some may think it strange that I should thus place a phonetic law of the Greek language on a level with one observed by these despised barbarians. But I could point out other correspondences of the same sort. For example, the Greeks used to change final *m* into *n*. The Somali do exactly the same thing at the present day. Of course I do not mean that either Nyamwezi or Somali has been directly influenced by contact with Greek, which is manifestly out of the question. But it seems most important to observe in living languages phonetic

processes identical with those to be found in dead ones. It will be easier to grasp the nature of these historic phenomena, if we can understand the nature of the phonetic modifications which we see taking place around us to-day.

LECTURE IV

RHYTHM AND MELODY IN AFRICAN LANGUAGES

In the pronunciation of a word, we are apt to consider the accent of especial importance: we often fail to understand a wrongly accented word even if all its component sounds are rightly rendered in other respects. To place the accent wrongly on a geographical name seems to us a great mark of illiteracy, and our first question about a foreign word is, " How is it accented? "

This accentuation varies in strength. We distinguish by the accent between the noun *produce* and the verb *produce*, compare also *perfect, protest, confine*, when used as nouns and verbs respectively. But in a sentence, in addition to these kinds of accent, we are accustomed to use another, the emphatic stress laid on the most important word. I can say, for instance, " He is writing letters," laying the emphatic stress on any one of the four words, according to the idea in my mind at the time—on " he," on " is," on " writing," or on " letters." We have thus, along with the unaccented syllables, three kinds of stress making up

the rhythm of a sentence. From a purely physical point of view we might be able to prove the existence of many more gradations of stress, the varying degree of excitement on the speaker's part being another factor in the result. But as far as our consciousness is concerned, it does not appear that we can assume with certainty more than three degrees of emphasis, as I believe Wundt [1] to be right in thinking that three is the highest number which can be directly perceived, higher numbers requiring a period of reflection, however short, to be correctly apprehended. Of course, singers, actors, orators, all who practise speech as an art, have to distinguish more than three gradations of stress in speaking or singing; but this is a process resulting from training and conscious effort, while we are here considering speech as an unconscious action.

The rhythm represented by these stresses seems to us so entirely a matter of course that, as a rule, we cannot help hearing a rhythm of some sort in any noises produced, *e.g.* in threshing corn, or in ramming down paving-stones. In the latter operation the strokes are all quite uniform, and yet the workman introduces a kind of rhythm into them by pausing after every fifteen strokes. It is a fact that most of us cannot help hearing a rhythm in any sound uniformly repeated. There is some difference between a step with the right and one with the left foot, though not so great as that indicated by

[1] *Völkerpsychologie*, ii. 385, iii. 56.

the rendering "pĭt-a-pat." The uniform jolting of a railway carriage is felt by most of us as a familiar rhythm, which at last becomes wearisome and painful, so that we wish to get rid of it. In such a case, we can usually, by the expenditure of a little energy, force ourselves to hear a different tune in the noise of the wheels. For a time this has to be done with an effort, but at last it becomes quite instinctive, and the troublesome tune has been driven out by another which is not felt to be unpleasant, till it too becomes wearisome by force of repetition, and we are compelled to repeat the effort. But the very fact that we are able to do this—to hear different rhythms in the same noise—shows us for a certainty that the rhythm is not inherent in the noise, but is introduced into it by us. The experiment can be made with unimpeachable accuracy by means of a metronome, whose uniform beats may be felt either as 3/4, as 4/4, or as 6/8 time. It is true that the rhythmic capacity of different people varies greatly: some perceive a rhythm at once, others are so devoid of ear for time that they never learn to walk in step or to dance. These last naturally cannot supply rhythms where none exist. Any one who hears French spoken for the first time is apt to be surprised when he finds the accent is not what he has been taught, but is treated by the French with great freedom, and that our strictness of accentuation is quite out of place. Thus we see also that the Greeks and Romans in their poetry paid no

attention to the accent of words and treated them with a freedom which would be impossible in English. In fact the Latin system of accentuation is different in principle from the Teutonic. The Teuton, in the main, accents the stem-syllable, distinguishing it from prefixes and suffixes. Take for instance the English word *unexcéptionable*, or the German *Begébenheiten*, which have the accent on the fourth syllable from the end, because that is the one containing the stem. Quite otherwise in Latin. It does not matter in the least which is the stem-syllable; the accent is always on the penultimate, if long, and if it is short, on the antepenultimate. We get, *e.g.*, from *béllum*, "war," *bellórum*, *bellicósus*, *bellicosíssimus*, *bellicosissimórum*. The Teutonic accentuation, then, is *etymological*, indicating the stem-syllable, or, in some cases, the syllable essential to the meaning of the word, while Latin accentuation is purely rhythmical, without relation to the meaning. In poetry, therefore, where a different rhythm prevails, the accent may be neglected in favour of the rhythm, which would be impossible in English or German, where the rhythm of the verse must correspond in the main with the word-accent.

Along with this kind of accentuation, however, we have another, which most people do not consciously realise, viz. pitch or *musical intonation*. We distinguish a complete from an incomplete sentence, an assertion from a question, by means of this intonation. If the last syllable is pitched

low, the hearer assumes that the speaker has finished, as in "I know he came." But if I raise the pitch of the "came" by a third, the hearer assumes that I am about to add a "but." "He came" on the level tone is an assertion, but if I pronounce the *a* and the *m* with a rising pitch, the sentence is a question. It is well known that we can give different meanings to the words "yes," "oh," etc., according to the pitch with which they are spoken. This melody of language is, as a rule, produced quite unconsciously on our part, yet it is of the highest value for the expression of feeling. An orator who has it at his command can usually be sure of his effect, even if he has nothing particular to say, while the thoughtful and weighty speech of another may appear tedious, through the absence of that modulation which makes such a difference in interesting the feelings of the hearer.

This melody, however, is by no means solely dependent on the sense of the words. Eduard Sievers[1] has pointed out how often we quite unconsciously differentiate the pitch of words. The German pronoun *sie*, for instance, is uttered with a different pitch when used as a feminine singular from that which it has when it is a plural of common gender. Every one, even without special study of the subject, knows that speech-melody varies in different dialects. Speakers of one reproach those of another with their "sing-song" modulation, and

[1] *Grundzüge der Phonetik.* Leipzig, 1901.

a competent student of dialects should be able to indicate the characteristic pitch of each.

This melody of European speech coincides in a singular way with its rhythm. Englishmen and South Germans in general pitch the stressed syllable high, while North Germans pitch it low. I have taken a long time in coming to the African languages. But the subject is such a difficult one that it is well to recur to phenomena in a familiar language before venturing on the novel and unknown.

If we pass from Europe to the tribes of North Africa, we find no special difficulties connected with accentuation. In the Semitic tongues, the stress accent preponderates, as with ourselves, and speech-melody has only a secondary importance. The same is the case with the Hamitic languages, and even in Swahili, a Bantu language strongly influenced by Arabic, the main thing to be considered is the stress accent. Here, too, speech-melody plays no greater part than in English. This, of course, does not imply that this melody is identical with ours. It is *a priori* improbable that it should be so, and in fact, investigation proves that it is not, in spite of the assertion, repeated again and again in grammars, that "the intonation of a question is the same as in English or German."

Even in Ful, the most southerly Hamitic language of West Africa, whose peculiarities are such that many philologists refuse to include it in this group, musical pitch is quite a subordinate matter. The

stress accent is on the penultimate syllable. Up to that point the word is pitched high—the last syllable is spoken with low pitch. In Somali and Masai, too, the stress accent is very clearly marked. It is impossible to make oneself understood without paying sufficient attention to it. As in German, the preposition prefixed to the verb is very strongly stressed, *e.g.* in Somali. The stress of sentences, moreover, is marked in this language, as well as that of words.

I was the first to point out that both kinds of stress accent, the etymological and the purely rhythmical, exist in Venda. The difficulty lay in the fact of both being present side by side in the same language. The etymological accent in Venda lies on the stem-syllable, which, however, it does not lengthen: the vowel remains short. The rhythmical accent lies on the penultimate syllable and lengthens it. The latter accent is naturally the one most easily perceived by Europeans, who notice the long vowel; but to the native this rhythmic accent is the less important. The etymological accent shows him which is the stem-syllable, and enables him to distinguish it from prefixes and suffixes. This accent was long ago discovered in Duala by Saker of Kamerun. It seems to be the rule, however, that a truth must be hit on several times by successive seekers before it is common property. With the help of the Berlin missionaries I have succeeded in ascertaining that both the etymological and the rhythmical accent exist in

Konde,[1] but here, curiously enough, the latter is placed, not on the penultimate but on the antepenultimate syllable. The penultimate, however, takes the accent when lengthened by the contraction of two vowels. I ascertained, with the help of the Rev. Hermann Tönjes, formerly my colleague at the Berlin Oriental Seminary, that the case is the same in Kwanyama. It is therefore proved that both kinds of stress accent exist in African languages, and even that they may be present simultaneously in the same language. It is also important to notice that, of two cognate languages, one has the rhythmical accent on the penultimate, the other on the antepenultimate. Monosyllables, which occur here as elsewhere, are treated (as in Greek) as enclitics. They are amalgamated with the preceding word and draw its accent forward, *e.g.* in Swahili, *thendéje* ("What shall I do?"), compounded of *thénde*, subjunctive of *thenda*="do," and *je*="what?"

If, however, we pass from the area of Hamitic and Bantu to that of the Sudanese tongues, we shall seek in vain, as in Ewe, for the stress accent. The language consists of monosyllabic roots, and a monosyllable cannot be accented in our sense. Even when these roots are joined together to form compound words, nothing in the nature of a stress accent is perceptible. For, as there are no prefixes or suffixes, and all syllables have exactly the same importance in relation to the whole, none can be

[1] Spoken at the north end of Lake Nyasa.

made to predominate over the rest. Nothing in the shape of declension or conjugation endings, as we understand them, exists in this language. One notion is set beside another, just as, in a mosaic, stones of equal size are placed side by side. All the finer shades of expression made possible to us by terminations are here absent.

By way of compensation, however, the monosyllabic roots possess musical intonation or pitch. By this we do not here mean a different pronunciation of the same word, as in the examples already given from English—"Yes," "Oh," etc. If these words are uttered with a different pitch, they acquire, it is true, different meanings, but the word in each case remains the same. On the other hand, those words in Ewe which have a different pitch but are otherwise identical in form have no connection with each other. They are as little related as English words which are identical but for the vowel sound, *e.g.* "pig" and "peg," "bit" and "beat," "cane" and "cone." Thus we have $v^2\grave{u}$="blood," and $v^2\acute{u}$="ship," $f^2\grave{u}$="sea," and $f^2\acute{u}$="bone," $v^1\grave{u}$="hole," and $v^1\acute{u}$="to tear," $f^1\grave{u}$="grief," and $f^1\acute{u}$="hair."[1] If we measure the pitch by physical means, we can, of course, distinguish a great number of modifications. Human speech ranges from the highest to the lowest tone of which the voice is capable, and between these extremes are far more tones than those which can

[1] $\grave{u}$ here stands for u with the low tone, $\acute{u}$ for u with the high. As to the difference between v^1 and v^2, see *ante*, p. 53.

be indicated on the piano. But not all these differences are consciously perceived; as a rule, all that is noticed is the threefold distinction which we designate by the words high, middle and low pitch. Besides this it has been discovered that here, as in Greek, vowels may have a double pitch, which we call the "rising" or "falling" tone. It, too, may be threefold, and descend after rising or rise again after falling.

We have already mentioned the fact that even a sound like *m* may have a definite pitch; and in fact *m* and *n* in African languages can be uttered with several variations of pitch. It may easily be imagined how difficult these things are for a European. The mere imitation of a word may be learnt, though even that is apt to be hard enough for the beginner; but the difference of speed is only perceived to the full when we try to talk on our own account. We cannot refrain from stressing the syllable which we wish to emphasise. In English, as we have already seen, we pitch the voice high when doing this, in North German it is low. But by so doing we alter the pitch of the syllable and utter quite a different word from the one intended. Or again, we try to express by the modulation of our voice a question, a request, a threat, apprehension or goodwill, and give our sentence an intonation suitable, as we think, for the purpose. But this alters the proper melody of the sentence, and the native stares at us in perplexity. Not even in a question, then, must the pitch of the sentence be altered, but

a low-pitched *a* is appended to express interrogation, so that, while our voices go up on a question, that of the African goes down. Every attempt to import the European interrogatory inflection into a sentence, therefore, only leads to misunderstanding. I will here quote some phrases which seem to us quite the same, but which are different in pitch and have entirely different meanings:—

élè àfì=" he is here."

élè àfi=" he rubbed himself with ashes."

élé àfì=" he caught a mouse."

The whole character of the language differs from ours. We give a prominent place to the stress accent and depend on it for our understanding of a word. It helps us to distinguish the essential from the unessential. Pitch or melody, on the other hand, is added to express emotion or special modifications.

In Ewe, pitch is a prominent feature and an essential part of the word. We are accustomed to express our ideas by means of consonants and vowels, but the Ewe regard musical intonation as equally indispensable. It does not serve to express moods and emotions as with us, but is used, we may say, to produce an accurate sound-picture of the object to be denoted. Our language pronounces judgments, Ewe paints pictures. The two methods of intonation have a very different effect on sounds. Musical pitch must be borne by a vowel or a voiced consonant. Every syllable in a sentence having its own pitch, without which it cannot be understood,

it follows that every syllable must keep its vowel, unless the pitch falls on *m*, *n*, *l*, or *r*. It is true that several roots are frequently amalgamated to express one idea. In that case an effort is made to unify the pitch of the coalescing syllables. It may be noticed, however, that even when vowels are contracted, the resulting vowel has double pitch, the pitch of each separate vowel having been preserved. Thus in Greek, contracted vowels frequently bear the " curved tone," the " circumflex."

Thus we see that pitch is extraordinarily persistent, and has a tendency to preserve the vowel.

It is quite otherwise with the stress accent, which, by its very nature, cannot lie on every syllable, since we mean by it the greater stress laid on *one* syllable. Therefore, in the case of stress accent, only one, or at most, two syllables of a word are described as accented, while in musical intonation, of course, every syllable has its own pitch. The prominence given to some syllables by the stress accent causes the unaccented ones to be pronounced more carelessly, or to disappear entirely. The accented ones, as might be expected, hold their ground better, and in all languages where this is the rule, the accented syllable is governed by quite other phonetic laws than the syllables which precede and follow it.

It has already been pointed out that the stress accent often has the effect of lengthening the vowel. But the greater expenditure of breath also modifies the consonants in the accented syllable,[1] through

[1] *e.g. k* to *kh*, see *ante*, p. 60.

the slighter enunciation of the consonants in the other syllables.[1] But this does not exhaust its influence. When the intervening vowels drop out, the consonants come into immediate contact, and the consequence is that they influence each other in different ways. And this process does not stop short at the modest beginnings referred to in the last chapter; but as any consonant may come into contact with any other, the number of possible combinations is very great. Thus we get, at last, such a state of things as prevails, for instance, in Berber, where, in some words, vowels properly so called are entirely absent.

Now, as the human mind does not conceive the different sounds of a word in succession, but simultaneously, this whole group of consonants is present to consciousness as a unit. It is thus easy to change their order in pronunciation, and so we often find consonants interchanged in these languages in consequence of the disappearance of vowels. The effect of the stress accent is thus seen in a very remarkable progressive change and disintegration of languages. This, again, has a further very noteworthy result. In a language consisting of monosyllables distinguished by musical intonation, this intonation is felt to be indispensable—consonant, vowel, and intonation form an inseparable whole. Where, therefore, written characters have been invented for such a language—which has twice happened in Africa in recent times

[1] *e.g.* γ to χ, see p. 61.

—the alphabet must inevitably be a syllabic one, each letter standing for a syllable, which in this case means a word. It is therefore probably not an accident that the Chinese character should be syllabic; and the inventors of the oldest Babylonian writing no doubt spoke a language marked by intonation.

Where, however, languages in which the stress accent prevails are written, it is soon found necessary to write consonants without vowels, and so the syllabic character tends to become a true alphabet—a process of which we see the beginnings in the Babylonio-Persian writing, and still better in Egyptian, till at last the Mediterranean nations discovered alphabetic writing properly so called.

Which is older, pitch accent or stress accent? Till within recent times it was assumed that the latter was the normal and natural thing, and pitch a strange aberration of much later growth. We have already mentioned the remarkable persistency of pitch and the instability of stress. If we consider further that the most important changes in sounds have been produced by the stress accent and that pitch in general tends to preserve sounds, it may be accepted as very probable that the stress accent is by far the later of the two. To this we may add the observation that pitch is found in Eastern Asia and Central Africa, among the yellow and the black race, but stress accent among the white race. This race is not distinguished from the others by greater manual dexterity or greater acuteness of observa-

tion—on the contrary, the others excel in these points; but it is pre-eminent in will and judgment, in the qualities expressed by the stress accent. Thus we shall probably have to look upon the rise of the stress accent in a certain sense as making a recent epoch in the history of language, while the pitch-languages have preserved for us an older form of speech. These considerations will be of value in connection with the evolution of the African languages.

The same thing can be observed in the development of every child. The child when learning to speak utters the few words he can pronounce, such as the names of animals, without stress accent but with very marked musical intonation. In learning to read, in repeating poetry, in school recitations, later on, his attention is continually being called to this point. "You must put the accent in the right place," is equivalent to saying, "You must distinguish the important part of the sentence from the unimportant by means of the accent." This is very difficult for children. They find it easier to repeat verse in a sort of chant suggested by the metre, and prose in a kind of sing-song, which, especially in country schools, has its own established character in each class—the new-comers soon falling into it. We know what patient and persevering efforts every public speaker has to make in learning to modulate his voice rightly, so as to awaken and retain the attention of his hearers. We practise these things to a certain extent unconsciously. Yet

we had to take great pains in acquiring them—only we have forgotten this, and do not notice the difference till called on to listen to some untrained speaker who ignores them.

Is there, in the languages with pitch accent, any connection between the sense and the "tone"? It is difficult to arrive at an answer to this question, which, at bottom, is the same as the old one, whether every consonant and every vowel is necessarily connected with any definite sense. We will not venture on such uncertain ground, but I may mention one point which is perhaps relevant—in Ewe certain onomatopoetic words are given the low tone if they refer to large objects and the high if they denote small ones, *e.g.* *gòlì* and *gólí*="round." (See Westermann, *Ewe-Grammatik*, p. 44.)

Similarly, in telling fairy-tales, we usually speak of ogres in a deep and small animals in a high voice. Here, then, we find an indisputable connection between pitch and meaning. Of course it is based on the fact that creatures of great size have deep voices, small ones high voices, corresponding to the size of their vocal chords.

I have placed before you the two distinct types of language, each having its own peculiar character. But as groups of languages belonging to these distinct types are spoken side by side in Africa, a mixture was inevitable, and so we find that pitch accent has its place in the Bantu languages along with the stress accent. It is most markedly present in those languages which, like Duala, impinge on the Sudan

area, it is far less so in those subjected to Hamitic or Semitic influences. In Swahili, the "tones" have quite disappeared. In Hottentot, which we believe to be a Hamitic language pervaded by a strong Bushman element, they exist side by side with the stress accent.

You will very probably ask: "Who was the discoverer of these novel and very complicated phenomena?"

In answer to this I must refer once more to my old friends the missionaries. In 1857, the missionary Schlegel published his Key to the Ewe Language,[1] in which, already, the "tones" are discussed; and in the same year Wallmann, Inspector of Missions, gave to the world a Nama Grammar, in which he even marked the "tones" by means of musical notes. Endemann, working with the conclusions of Bleek and Lepsius in view, discovered the tones in Sotho. In collaboration with the missionary Schwellnus, I discovered the tones in Venda, as well as the peculiar double stress accent, and the same in Konde, with the help of Messrs. Nauhaus and Schumann. Finally, Professor Westermann, in his Ewe grammar, has given us a masterly analysis of the laws governing the intonation of that language. The late Rev. J. G. Christaller, who discovered the tones in Tshi, at the same time introduced a convenient way of indicating them in writing. His son, a government schoolmaster in Kamerun, pointed out their existence in

[1] *See* Cust, *Modern Languages of Africa*, i. 203.

Duala; and their laws in this language were worked out by the missionaries Schuler and Lutz. The tones in Nama were very comprehensively treated by Krönlein, but his work has been recently completed and corrected by Leonhard Schultze, who, assisted by Eduard Sievers (the teacher to whom we all owe so much), has tackled these thorny problems with a greater measure of success than any of his predecessors.

Much, however, remains to be done, and one of the first things to be examined is the relation of melody and rhythm in language to melody and rhythm in music. The close connection between the two is evident from the fact that the natives of the Sudan have invented a special drum-language which is still in frequent use. The Berlin Psychological Institute has rendered great services by the attention it is devoting to exotic, and more especially to African music.

LECTURE V

THE MORPHOLOGICAL DEVELOPMENT OF AFRICAN LANGUAGES

THE different genius of the various African languages can most easily be shown by means of some concrete examples. I will take as specimens three sentences, one from Ewe, a Sudan language, one from Swahili, a Bantu language, and one from Somali, a Hamitic language.

The sentence, "He gave the children the pencil," runs in Ewe: *E-tso kpe-nlo-nu la na de-vi-wo.* It is usual in Ewe to write the groups of syllables here joined by hyphens as single words. But it is easy to show that these words, though written each as one, can be analysed without difficulty into monosyllabic roots, each of which can also be used separately. The sentence may be construed literally thus:—

E="he"; *tso*="take"; *kpe*="stone"; *nlo*="write"; *nu*="thing." "Stone-write-thing" is "a pencil." *La* is the definite article, which is invariable—in reality a kind of demonstrative particle. *Na*="give"; *de* (usually *a-de*)="some one"; *vi*="child." *Vi* is as a rule used in compound words, the other component indicating whose

child is spoken of. Here no particular child is meant, therefore we say, *de-vi*="some one's child." *Wo*="they," is used as a sign of the plural, when the number is not otherwise indicated. But it can also be used independently. The literal rendering of the sentence therefore is: "He take stone-write-thing, it give some-one's-child-they,"="He took the pencil and gave it to the children." We see that the verb-stem *tso* remains unchanged, we only prefix *e* ("he, she, it") and so get a form used in narrative. But we cannot say simply, "He gave the children the pencil," as there is no case sign by which we can distinguish the accusative from the dative. We therefore describe the action exactly as it took place and say, "He took the pencil (and) gave (it to) the children." Similarly every verb which implies a composite act is dissected into the separate phases of the action.

A pencil, again, was an unknown object to these people; as soon as they saw it, they named it from its function, "stone-write-thing." Just so a watch is "iron-strike-(of it)self"; a nail, "iron-head-broad"; a kitchen, "something-cook-place." Thus we see that all these designations are made up of separate, independent roots. *La* indicates that a particular pencil is referred to and therefore looks like an article, a sort of formative element. But this is only apparent, for *ka* may be suffixed to a whole sentence which it defines. so that it does not correspond to what we understand by an article. *Na*="give," does not even contain the pronoun

"he," so that the pronoun does not produce a conjugation in our sense of the word by modifying the verb-stem. *Kpenlonu* stands in the relation of direct object to *tso* after which it is placed—*deviwo* to *na*. Position is the only way of indicating grammatical relationship. We therefore have to deal with a number of invariable roots which influence without modifying each other. If we try to make the nature of this influence clear by treating it as an algebraical operation, representing the roots by letters—I have purposely chosen capital letters for a reason to be explained later on—the scheme of the above sentence will be:—

$$ABC \times DE \times F \times G \times H \times I \times K.$$

If we entirely disregard the sense of these roots and think only of their form, we might denote every root by R and then take R^{10}, or, applying the principle to any sentence, R^n as the formula of the language. I have intentionally treated the matter in this diagrammatic fashion as this is the most satisfactory method of making the differences clear.

Let us now take a Swahili sentence—not the same as the one in the first illustration, but one suited to exemplify the characteristic formations of this language.

Ki-le ki-su ki-kuku-u ki-me-vi-khata vi-le vi-dole vy-a m-toto m-dogo. "The old knife has cut the little child's fingers." Here we must notice, first, that the prefixes *ki-*, *vi-*, and *m-* mark the three substantives *kisu*="knife," *vidole*="fingers," and

m-toto="child," as belonging to definite categories or classes. *Ki-* and *m-* mean nothing by themselves, but only indicate that the one word denotes a tool, the other a human being. We therefore have to distinguish between the prefix and the stem of words. The prefix has no meaning by itself, neither has the stem—we only get a word when the two are added together. The stem *kuku-u* is formed by reduplication from the stem *ku-u*, and this stem is derived from a hypothetical root *-kul-*, the final vowel of which we do not know for certain. We see, then, that roots are not here used by themselves, nor even the stems derived from them, but words derived from the stems. But *ki-*, *vi-*, *m-* not only indicate the group of notions to which each word belongs, but also whether it is singular or plural. *Vi-* is the plural of *ki-*, "the knives" is *vi-su*, "the finger," *ki-dole*. The plural of *m-toto* is *wa-toto*. Further, the prefixes show what words stand in grammatical relation to the substantive, for every such word receives the prefix of the substantive in question. *Ki-le*, "that," thus belongs to *ki-su*, while *vi-le* belongs to *vi-dole* and *m-dogo* to *m-toto*. In the same way *ki-kuku-u*, "old," belongs to *ki-su*, and the genitive *vy-a m-toto m-dogo*, "of the little child," to *vi-dole*—they receive the prefix of the word on which they depend grammatically. *Vy-* is substituted for *vi-* on account of the *a* following it. In the verbal form *kimevikhata*, "it has cut them," the subject is *kisu*, "the knife," the prefix is therefore *ki-*. Then comes *-me-* as a sign of completion,

then *vi-*, referring to *vi-dole—vidole* being the object of the verb — and finally the stem *khat-a* — the termination *-a* being an old tense-ending.

We find, then, that words are built up in quite a different way from that used in the Sudan languages. *Ki-me-vi-khata* consists of the stem proper, *-khat-*, three prefixes and a suffix. If we denote the stem by *R*, the prefixes by *p* and the suffixes by *s* (choosing small letters in the two latter cases, to indicate the fact that the particles have no independent meaning, being only found in combination with the stem), we may here once more express the mutual influence of the different elements by multiplication. Leaving out of account the different force of *ki-*, *vi-* and *m-*, we may, purely as a matter of form, represent each of them by *p*. Thus we get the formula p^3Rs for the above sentence. The number of possible prefixes to a word, however, varies, and the number of possible suffixes still more so; there may on occasion be far more than three. We must therefore take as our general formula p^nRs^n. Thus we find a very important difference between this and the Ewe formula. There we had only bare roots; here the roots are enlarged into stems by means of prefixes and suffixes. Also, in the case of Ewe we found no sign of sentence-construction, but here *p* is repeated, with the function of expressing the agreement of the various parts of the sentence. Ewe has no division of notions into definite classes; here we have a strict division into classes. Ewe has no plural formation

properly so called—Swahili has different plurals for the different classes.

We now come to an illustration from the Hamitic languages. I take a sentence in Somali: *Nin-ki yi-di: Ku ma a-qán.*[1] "The man said: I do not know you." *Nin-ki*="man," consists of the stem and the masculine article *-ki*, which may also have the form *-ka* or *-ku*. This modification reminds us startlingly of Arabic case endings, though it is not identical with them. *Yi-di*="said," comes from a verb *dah, deh*="to say." As in English, "give" and "gave" belong to the same stem, so here also the change of tense is expressed by the change of the stem-vowel. The same is the case with *qan*="to know," which in other forms is *qin*. *Yi-di* is the third person, the others being *idi*="I spoke," *ti-di*="thou didst speak." Similarly, the present tense is: *aqán*="I know," *ta-qan*="thou knowest," *ya-qan*="he knows." Any one acquainted with Hebrew or Arabic will agree that, here too, the resemblance is startling. An Englishman will find this way of speaking much easier to understand than those we described just now. The words *ku*="thee" and *ma*="I" require no special explanation. Somali has one more peculiarity which is extremely important, viz. grammatical gender. We saw just now that *-ki, -ka, -ku* is the masculine article; there is also a feminine one.

[1] I have purposely refrained from giving a formula for the sentence as this would complicate the matter unnecessarily. These languages make a clear distinction between the word and the sentence.

Here, then, we have a mode of speech which, like English or Arabic, changes words, not only by means of prefixes and suffixes, but also by modification of the stem-vowel. Besides the stem *qan*, which is perhaps an original root, we find the stem *qin*, so that we cannot assume R only, but must say R^1 and R^2; or rather, remembering that a number of Hamitic languages have still further modifications of the stem, R^n. We have already mentioned the prefixes and suffixes, so that, supposing these to be as already stated, we get the formula $p^nR^ns^n$. Here, too, it is undesirable to set up a formula for the sentence, as this would make matters too complicated. It is obvious that this is nearer to the Swahili than to the Ewe formula; and we get thus three types of speech, called in current phraseology isolating, agglutinative, and inflectional. Such a distinction is very useful in making the subject clear. But there is no doubt that the types are not always found pure and unmixed. We have already seen that *la* in Ewe is a sort of article. In many cases it becomes *a*, and it is sometimes amalgamated with the preceding vowel. Here, then, the independent root is beginning to assume the form of a suffix. We saw also that *de*="one" elsewhere appears in the form *ade*. This *a-* is found prefixed to many nouns. It must certainly have had a meaning of its own, but whatever it once was, it is now forgotten, and thus *a-* has acquired the force of a noun-forming prefix. *Ati* is a word meaning "tree." As we often suffix "tree" to a specific name and

say "oak-tree," "elm-tree," etc., *-ti* is in Ewe often suffixed to the names of trees, and this looks like the beginning of a class-division.[1]

Thus we see that prefix- and suffix-formation, and even a division into classes, may be developed in an isolating language. Still clearer is the transition from the agglutinative to the inflectional languages. For instance, there is no possible doubt that the Perfect Prefix *-me-* in Swahili is an old perfect of *maa*="to finish." The change from *a* to *e* for the perfect is of frequent occurrence in Bantu—*e.g.* in Konde, *angala*="to be well," makes its perfect *angele*, and *bona*="to see," even *bwene*. It is true that, if we look more closely at these forms, we shall see that they have not really arisen from the modification of the vowel ("Ablaut") but by contraction from longer forms and with pure suffix-formation. But this is the same in Somali. The distinctive characteristics of the two tense forms in Somali are *a* and *i*. In *qan*, *qin*, these characteristic vowels have apparently found their way into the stem.

We see, thus, that the limits of these types of speech are not rigidly fixed, and that we must admit the possibility of one type gradually passing over into another. If we take the isolating languages as the simplest form of human speech, we must suppose that they represent the earliest stage and

[1] It may be mentioned that the Galla-speaking Wasanye of East Africa (if not the Galla themselves) prefix *muk*="tree" to specific names of trees, as *muk Karayu*, etc.

that many roots were in course of time reduced to mere prefixes and suffixes, thus originating a division into classes. As time went on these prefixes and suffixes effected a change in the stem-syllable, and the division into classes was obscured and superseded by another classification, originally based on the distinction between persons and things, which gradually developed into the masculine and feminine genders. In this way we should have a uniformly progressive evolution, some stages in which could even be shown to exist in actual fact.

From a merely literary and theoretical standpoint no fault can be found with this view. But if we glance at the physical constitution of the Africans and their ethnographic diversities, this course of evolution must strike us as very improbable. We find (in addition to the Pygmies and Bushmen, whom we shall disregard for the present) on the one hand the type of the Sudan Negro, on the other, that of the Hamite. There can be no doubt that this Sudan Negro is physically very different from the white race, and it is equally certain that the Hamite shows striking resemblances to the Arab and the European. As we have seen, his language also corresponds in some very essential points with European and Semitic types of speech; we can therefore hardly think it probable that this language should have evolved in a direct line out of a language organically connected with the Sudan type. Further, the Hamite, as a cattle-breeder and warrior, has reached a higher social stage than the Sudan

Negro who is still in the hoe stage[1] of agriculture and for whom the keeping of cattle is always more or less of an acquired habit. And if we pass into the Bantu area, we meet, not only with individuals of the pure negro type, but with others who in their physique and style of living remind us strikingly of Hamitic tribes. We may therefore suppose that there was a dark-skinned, woolly-haired primitive population in Central Africa, while the north was occupied by a light-coloured curly-haired race. These light-coloured herdsmen then drove back, subjugated, and, in many cases, absorbed the dark race. Thus there arose mixed races, of whom the Bantu are the most important; and sometimes, as in Ruanda, the component elements of the people can still be clearly distinguished. This assumption seems more probable both from an anthropological and an ethnographical, and, I think, also from a historical point of view, than the one first suggested, of direct evolution.

But it is always unsatisfactory to derive arguments from an unfamiliar science and use them, so to speak, apart from their context; and linguistic similarity proves nothing as to anthropological relationship. The fact that the negroes in the United States speak English does not make them Aryans. It may be objected that after all one

[1] The hoe is the earliest agricultural implement, having preceded the plough, where the latter is now in use. Cereals (wheat, rye, barley) seem to have come in with the plough: where hoe-culture prevails, millet, and in the New World maize, are grown.

science must supply the deficiencies of another, and that the obvious fact of the black and the white race having been separated for a very long period before they came in contact, makes it exceedingly probable that in the interval they had developed very divergent types of speech. But the question remains whether we cannot discover any purely linguistic indications that in Africa we have to do, not with evolution in a direct line, but with the collision of two entirely different types of speech. I am able to adduce, in the first place, two facts which seem to me of great importance. One of these is the *difference of accentuation*, the other *the position of words in the sentence.*

We saw in the last chapter that the Sudan languages have musical intonation and, on the whole, are quite devoid of the stress accent. The Hamitic tongues have the stress accent, and pitch occupies but a subordinate place. We saw that, in the Bantu languages, pitch is of the greatest importance where the Hamitic admixture is slightest, and that it disappears altogether under Hamitic and Semitic influence. But the stress accent is here prevalent throughout. It is true that we might assume the possibility of musical intonation having gradually fallen out of use and the stress accent having become more marked, till it became exclusively predominant in the North African languages. But this does not seem very probable.

Such a hypothesis is seen to be quite inadmissible when we come to consider the position of words.

In the Sudan languages the genitive always stands *before* the word which governs it, and the subject before the verb. The normal position in Hamitic is, so far as my acquaintance with these languages goes, the reverse—the genitive comes after its governing noun, the subject after the verb. It is very improbable that one of these types should have developed out of the other; for each is connected with a people's special cast of thought. It is a matter of course to the Sudan negro that he should say, " The boy's cap," since the boy must be in existence before he can be said to have a cap. In the same way he says, " The boy calls," for the boy exists first and then the action of calling. The North African attaches no importance to the order in which things take place, but—as might be expected from a kinsman of our own—his first preoccupation is with the most important thing spoken of. Thus, if he is thinking chiefly of the cap and not of the boy, he begins with the former and says, " The cap of the boy." In the same way, if he relates the fact of the boy's calling some one, the calling is the prominent idea in his mind, and he says, (" There) calls the boy." This is the general scheme, which is especially clear in Berber. Here, too, we find a remarkable correspondence between Hamitic and Semitic languages, and probably we shall not be far wrong in assuming that they are originally akin, in being the speech of the white race and, as such, distinct from that of the black race. Of course there are all sorts of variations,

and a contact extending over thousands of years has naturally given rise to mixed forms. We have direct proof of this in some Semitic languages of Abyssinia, where the place of the genitive before its governing word runs counter to all the rules of this linguistic family. If this can take place in a Semitic language, well known to have been imported from Arabia, how much more in the Hamitic languages, which have been spoken in Africa for a much longer period. Hottentot, for instance, is such a mixed form of language. The same thing, however, is also found in Bantu, for here we always have the genitive following its governing noun. The subject usually precedes the verb, but in Swahili it frequently follows it, so that here, too, we find traces of mixture. I do not think that these differences of position can be explained simply by evolution. But they are explained without difficulty if we assume two originally distinct forms of speech. To this we must add the following consideration. We said just now that a class-division *may* arise if, *e.g.*, the suffix *-ti* everywhere means "a tree." But we have no sort of evidence in the Sudan languages that a division into classes has ever actually originated in this way. Where the germs of such an arrangement are to be found, Hamitic influence is demonstrable. Thus this act of intellectual judgment, the dividing of things into groups or classes, would appear to have been due to the white race. This is the case in Ful, the simplest Hamitic language accessible to us, and the correspondences

between it and Bantu are so numerous that I no longer dare to deny a connection between the two. Here, too, then, the connecting link between the Hamitic and the Sudan languages is wanting. Probably what happened was this: a language resembling Ful, and possessing in the main the characteristic Hamitic features already enumerated, assimilated a Sudan vocabulary and so formed the Bantu languages. Ful began to adopt, side by side with the classes, as they exist in Bantu, another system of classification, and made a distinction between persons and things, large and small objects. The old classification was, later on, gradually dropped: the personal class became the masculine gender, the thing-class the feminine, or, more strictly speaking, the neuter. This state of things is found to-day in all the Hamitic languages, including Hottentot, which, however, is tinged with a strong Bushman element. The Hottentot "neuter" is an indefinite article, common to both sexes, not a neuter in the sense commonly understood in Europe.

There are still many traces of a class-division in the building up of words and in the formation of the plural in most of the Hamitic languages; but it has entirely disappeared from their grammar. While, therefore, we have assumed a definite limit between the isolating and the non-isolating languages, we find that no such clear line can be drawn between the agglutinative and the inflectional. Here, as a matter of fact, we can find transition forms. Probably the Hamitic languages, when

they first appeared in Africa, were about in the stage of development which we find in Ful. It may be objected that this must have been preceded by other stages. This is certainly very probable, and it may be that here, too, the earliest form was an isolating one. But we do not know what this form was like, and even if it could be arrived at by deduction and comparison, we should not know for certain whether we were dealing with an African language or not—since we do not know where the light-coloured people came from. Did they migrate to Africa from Europe or from Asia? Or was their original home in North Africa? It is impossible at the present day to come to any conclusion on this head.

It seems to me more important to have ascertained that we have in Africa, along with various mixed forms, two separate types of speech, one of which is still in the isolating stage, while the other appears from the beginning as agglutinative and has gradually developed into an inflectional form. This matter has, in my opinion, an especial significance for the study of the Semitic, and perhaps also of the Indo-Germanic languages. We can here observe the change of radical vowel (*ablaut*), reduplication, different modes of forming the plural, grammatical gender, all in process of formation—which is impossible in the finished languages of Europe and Asia.[1] It therefore seems to me by no means impossible that we have here the long-sought link

[1] See below, Lecture VIII.

between the Semitic and Indo-German families. We should then be enabled at last to agree with the anthropologists, who have always asserted a relationship between the Semites and the Greeks; and thus our despised African linguistics may perhaps help in the solution of important questions relating to the history of the human race.

LECTURE VI

THE PRACTICAL IMPORTANCE OF AFRICAN LINGUISTICS

THE most immediate practical considerations which induce people to learn foreign languages are those connected with trade. The wandering hunter has little intercourse with men of other tribes. He requires a wide extent of ground in order to feed himself and his family, and other clans are troublesome competitors, so he has little opportunity or inclination for speaking to strangers. The husbandman, bound to the soil, clings to his home, and has no inducement to visit other countries. Foreigners are enemies to be repulsed or avoided as well as he can; there is little or no object in talking to them. The nomad, it is true, comes into contact with other clans of his own tribe, and lives in friendly emulation and in the habit of intermarriage with them. But intermarriage leads to identity of speech. Strange tribes of herdsmen are his enemies; the agricultural tribes he meets with are despised, plundered, and enslaved by him. He has no interest in learning their language. In all these cases, individual exceptions can be discovered, but this in the main is the course things will follow.

The one man whose interest it is to communicate

with people of alien speech is the trader. He wants to exchange goods with foreign tribes, and to this end it is necessary for him to understand what they say and make them understand him. This is the case even in the primitive form of barter practised by the hunting and agricultural tribes of Africa. When the hunter takes some food from the husbandman's plantation and lays down a piece of meat in place of it, if this exchange goes on for any length of time, a kind of business friendship is developed, which in due course makes verbal negotiations possible. Thus it happens that the Pygmies as a rule understand something of the language spoken by the neighbouring agricultural tribes. But the same thing happens to the husbandman in his turn, so soon as he has begun to raise crops a little in excess of his own consumption. In the whole of Africa, markets exist in a well-developed form among the agricultural tribes, and are very popular. People of different languages meet there and exchange their produce. This commercial activity is still further heightened by the craftsmen who make pottery, mats, baskets, iron and bronze work, not only for their own use, but also for sale. This is commerce in its simplest form, where every one brings to market the goods he himself has made. Even the herdsman eventually takes part in it. He exchanges cattle or meat, in the first place for iron weapons and ornaments, later for garments and vegetable food, which are more especially needed by the women, children, and old people.

The evolution of trade, as the specialised occupation of men who no longer sell their own work but goods made by others, originated, in the interior, with the predatory raids of nomad herdsmen,—on the coast with the fishing population.

The peaceful exchange of goods is interrupted by raids in which a quantity of plunder falls into the hands of the victorious party. The warlike part of the tribe will eagerly press on to new conquests, while the more peacefully disposed will know how to utilise the wealth acquired and increase it by barter. Thus robbery and commerce often go hand in hand. In Africa, from the very earliest ages, they are found associated under one particular form of each—the kidnapping and sale of human beings. In connection with these raids on a large scale, we must once more remember that the Africans are by no means a homogeneous race, but that they may be reduced, in the main, to two types—the black and the white race: the former appearing as slaves and victims, the latter as robbers and masters. So far as the memory of man extends, there have been black slaves among white races, but white slaves among black races have always been exceptions. Thus the rise of trading tribes in Africa is as a rule connected with the presence of the white race.

It is obvious that the fisherman, already accustomed to trade by selling his fish in the native markets, forms in the first place an admirable intermediary between the strangers arriving from over sea and the indigenous population. He affords

the natural basis for navigation and maritime trade.

If we think of the enormous diversity of languages in Africa, we can easily estimate the extraordinary difficulties with which commerce has to contend. All those tendencies of hostility to strangers which we have noticed in the case of the hunter, the herdsman and the farmer, are strengthened by difference of speech, and themselves serve to accentuate that difference. Except where a strong rule has welded together several tribes into a larger political unit, the confusion of speech is positively bewildering. Even if the small local traders can get on by picking up a few of the most necessary words and phrases from the language of a neighbouring tribe, this would be no help to the merchant, who has to make distant journeys many weeks in duration. Every few days he comes to a fresh language. Here the only course open is to introduce some one language as a *lingua franca,* which is adopted by all these small tribes for trade purposes. Where a dominant people has created a larger political unity, such as the Arabs in North Africa and the Fulani in the Sudan, their speech will, of course, become the trade language—though not to any considerable distance beyond the limits of their direct political influence.

These dominant languages have one defect which to a certain extent unfits them for commercial purposes. They are too difficult; they possess a complicated grammar and contain strange and archaic sounds—two points decidedly disadvantage-

ous in a trade language. A trade language must have sounds easily pronounced with approximate correctness, even by foreigners, and its grammatical forms, too, must be such as a foreigner can master without difficulty. Besides being easy, it must also be flexible and readily absorb foreign elements.

The Western Sudan possesses in Hausa a language admirably suited to answer this purpose. Its structure is Hamitic, though the people who speak it are not pure Hamites, but mongrels and slaves with a strong infusion of negro blood. As spoken by them, the language has got rid of all difficult sounds and combinations of sounds. This does not make it a Sudan language, it has neither monosyllabic roots nor pitch accent; but the negro can learn it with comparative ease, the Arab and the European can do the same. As the Hausa are Muhammadans, the language has assimilated a large number of Arabic words, especially religious terms and technical expressions connected with the arts of life. It has adapted to itself the Arabic character, and has thus become for millions of people in the Western Sudan an excellent medium of oral and written intercourse. At the same time it has far outgrown the practical necessities of commerce.

Swahili in East Africa is in somewhat the same position. The Arabs, Persians, and Indians, who visited the East coast for the sake of plunder or commerce, used the language of the coast population, *i.e.* that of the fishermen and traders, as a medium of intercourse. They have enriched it with

Persian, Arabic, and Indian words, have simplified its too complex forms and thus made it an excellent means of communication for the peoples of East Africa. Of course this was not done consciously and systematically, but it inevitably resulted from the practical necessities of the case. Thus it has come about that this language not only continues to extend its domain in Central Africa, but is understood in all the great seaports on the Indian Ocean.

European commerce in Africa too often began as mere robbery. Even though, here and there, an attempt at legitimate trading was made, ignorance of each other's speech soon led to friction between the two parties, and this formed a welcome excuse for armed intervention and plunder. The lapse of time brought about a change in this respect. Though we cannot take the period of the slave-trade as representing the beginning of ordered commercial relations with Africa—the slave-trade being inseparably connected with kidnapping and violence —yet in course of time a regular system of barter, and in some places even purchase and sale in the European manner and on a large scale, developed out of these barbarous forms. Hence arose, for the European, the necessity of direct intercourse with the natives. In East Africa the European trader took the wisest possible course in making use of the existing *lingua franca*—Swahili—and had a considerable share in spreading it still further. This gave him the means of communicating by speech or writing with natives belonging to many different

tribes. In North Africa, as might be expected, Arabic served the same purpose, even far into the Sudan. In South Africa, European immigration attained such proportions that the speech of the dominant race gained currency as a trade language. Matters took a different course in West Africa. Hausa is emphatically a language of the interior, and only became important for the European merchant when journeys up-country became possible. But, at first, trade was confined to the coast, and only in the last decades has it begun to penetrate into the interior. On the coast, however, no African language has gained a footing as a *lingua franca* over any considerable area, and the speech which here occupies that position is " Negro-English."

This, it must be remembered, is not in any real sense English; it is rather a number of English words arranged according to the syntax of the Sudan languages. The material of the language is in the main English, the form negro. However objectionable this mixed jargon may be, it is indispensable for trade purposes.

Apart from these great trade languages extending over enormous areas, it would be a mistake to suppose that the European trader has no occasion to trouble himself about the less widely known tongues. It is obvious that if he can talk with the natives directly he will be more successful in gaining their confidence than if he has to depend on the services of an interpreter, whose statements he is unable to check. It is to be expected that the growing interest taken by

Europeans in the native cultures of Africa may have the effect of raising the economic position of the natives and increasing their purchasing power, and this, again, will render a knowledge of their speech increasingly valuable. The practical advantage to commerce of progressive improvement in such knowledge does not seem to need demonstration. The work of the missionary has often started simultaneously with that of the trader, though, in many cases, strongly opposed to it. The vessels which brought the first Portuguese *conquistadores* to the shores of Africa, carried priests entrusted with the duty of preaching the Gospel to the pagan tribes of that continent. Of course these men were not and could not be competent to perform a task for which they were so totally unprepared, even if any satisfactory results could have been expected from a religious propaganda which went hand in hand with commercial practices belonging to a barbarous stage of society. However, even these first attempts at missions led to linguistic work, especially on the Congo, to which reference was made above (p. 36). It was obvious that, if the missionary wanted to win over the people to his own religious convictions, he must at least be able to speak to them. No work of any extent, however, was done in this direction, and with the decay of the Portuguese colonial empire and the decline of Portuguese trade, the missions and the linguistic work connected with them likewise declined. Traffic was diverted to richer and more

thickly populated countries. With the rise of Protestant missions a new impulse was given to the investigation of African languages, for these missions soon recognised the immense practical importance of linguistic knowledge. It was seen that, so far from the language being a mere hobby wherewith to occupy one's leisure, the only way to the people's hearts was through their mother-tongue. The missionaries had no desire to make use of political or economic inducements in order to attract the natives, but acknowledged themselves as messengers of the Word, and thus by sheer hard work fought their way into the African languages. The impossibility of preaching through an interpreter has often been insisted on. No man can interpret what he does not himself understand. To-day, when there are numerous native teachers and clergy belonging to African tribes, a sermon may sometimes be delivered through an interpreter with good effect; but in the beginning this was absolutely impossible of attainment. The Christian ideas which formed the groundwork of the preacher's discourse were absent, and the interpreter said what seemed good to himself—often enough mere nonsense—in order to keep the attention of the hearers at any cost, rather than risk the loss of his pay. A conscientious man, unable to continue his work for any length of time with such untrustworthy assistance, had to make every effort to speak and understand the strange tongue for himself. These men, therefore, were guided, not by a scientific,

but by a purely practical interest. But the compelling force which drove them to try again and again, in spite of all failures and the insufficiency of their own knowledge was, in one word, the Bible. Protestants of all nations are agreed that their religious life centres round the Scriptures, and that these must be read, not in a foreign language, but in the mother-tongue. Thus the whole work of Protestant missions in Africa tended towards the translation of the Bible into African languages, and the newly-founded Bible societies, among which the " British and Foreign " has the foremost place, were responsible in great part for the cost of printing, in many cases also for the cost of translation.

The achievement of such a translation is by no means a simple matter. Apart from the fact that the necessary helps of grammar and dictionary do not exist, and have to be produced by the labour of the translator or his colleagues, he has to solve the problem of saying things never before said in the language. In the case of a great trade language, such as those previously mentioned, which, moreover, has been prepared by contact with Islam for the expression of higher religious ideas, the task becomes comparatively easy. For these are the languages of lettered folk, in which one can speak to all sorts of persons and use all sorts of forms. They are languages understood far beyond the bounds of their proper home and spoken by people of other tongues. Thus they have lost some degree of originality, but they are plastic in the hand of

the translator. Arabic religious terms, it is true, present some difficulty. One is glad to make use of them, finding them ready to hand, but afterwards it becomes evident that they never quite lose their exotic character, and what is worse, that they are, as might be expected, understood in the sense of Islamic theology—an entirely different one from that intended by the Christian missionary.

But the difficulty is far greater when the translation is into the speech of a purely African tribe. Here we find that whole sets of notions belonging to a mode of life strange to the people are absent. With a pastoral people like the Herero we have no difficulty in saying anything that relates to cattle, in this respect, in fact, the language is capable of delicate distinctions unknown to us. But as soon as we wish to speak of agriculture, say, or fishing, commerce, or town life, we find that words are wanting. Still more striking are the difficulties connected with the expression of the higher moral and religious ideas. Here we feel the want of the service rendered by Greek literary culture and Greek philosophy to Judaism and Christianity, in effecting the transition from the Hebrew-Aramaic to the Hellenic circle of thought. The preparation supplied to us by the worship of Pagan Greece and Rome is wanting here. In Africa we have to deal with primitive cults of magic, ancestor worship and animal worship. There is no adoration strictly so called of heavenly gods in special temples, with the assistance of special priests. It is true that the

beginnings of such cults are to be found, but they are for the most part connected so closely with magic, and the distinction between the priest and the magician is still so vague that we cannot transfer the terms of heathen worship to the language of the Bible, as could unhesitatingly be done in Greece and Rome. I will only mention one notion, which it is usually found impossible to express—that of " holiness." The idea of the " daemonic " or " spiritual " as opposed to the profane, is not yet clearly differentiated into good and evil. Sometimes what is meant by it is conveyed by our word " holy," sometimes by " unclean," and therefore the terms relating to it cannot be used for Christian purposes. The Africans, as their tales and proverbs show, have a good store of practical good sense and a certain simple morality. But when we come to such abstract notions as " justice," " love," " will," their words are insufficient.

Added to this, we have all sorts of serious technical difficulties. The translator may be a genius, but when all is said and done, he is a European; in the most favourable case, he can make good suggestions for the translation, but he cannot give it a permanent form. He has first to train a set of competent native assistants, before he can think of producing something which will really come home to the hearts of the people. Here all sorts of unforeseen troubles are apt to occur. The greater the respect and authority enjoyed by the white man, the more will the natives be disposed to give way to him, even

when they know him to be mistaken. In many cases, the natives will, in spite of all explanations, fail to understand exactly what is meant, and thus sentences will be left standing which convey something quite different from what the translator supposed. There is yet another disturbing influence. We all remember from our own childhood the magic spell exercised by things we did not in the least understand, if impressed on the mind in connection with religious emotions. It is not otherwise in Africa. The mistakes made by a missionary are, quite without his knowledge, invested with a certain solemnity, and it may easily happen that his assistants purposely make the same mistakes in order to give impressiveness to their speech. Mistakes, as it were, consecrated by ecclesiastical use are particularly hard to get rid of. All this shows us how great are the obstacles in the path of the translator, and we are no longer surprised that translations should fail to attain perfection, and that they should continually undergo revision and improvement.

But the Bible is of no use to the natives unless they can read it, and therefore the elementary school has from the beginning been closely connected with the work of Protestant missions in Africa. By this I mean not a compulsory government institution, but the teaching of any, children or adults, who may be willing to learn. Here, too, the necessary materials had first to be provided. The primer was the first book printed in many African languages,

soon followed by a reading-book containing Bible stories or other matter. Hymn books for the teaching of singing were shortly added, and so we speedily find the nucleus of a vernacular literature already in being. This is the utmost that some languages have attained to, and some will never get any farther. There are dying and conquering languages in Africa, the former sinking more and more into the position of local dialects as the people lose their political individuality and amalgamate with other allied tribes into a larger unit. The conquering languages, on the other hand, extend their ground at the expense of the dying ones, and it is to the interest of missions not to retard this process. They must have native teachers and clergy and cannot of course supply separate means of higher education for every small language. Neither can they establish seminaries and training colleges for every little district. Here we must have recourse to the conquering languages. These can be used for higher education, till the pupil has reached a stage where he can profit by European books.

Here we must mention yet a further activity, that of the Christian press. We have to-day in Africa a whole series of native vernacular newspapers, Protestant and Roman Catholic, enjoying a fairly large circulation. With their help, not only religious instruction but all sorts of useful knowledge can be imparted; for instance, that relating to the introduction and cultivation of food and other plants, new laws and regulations, etc. Market reports and

postal information are also printed, and so we see modern means of communication put within the reach of the people.

This brings us to the connection of these various activities with another cause to which African linguistics are of the greatest importance—that of colonisation.

The main object of the Portuguese colonial policy was not so much to form settlements in the new countries as to drain off their wealth to Europe; so that, apart from trade requirements, there was little occasion for the cultivation of linguistic knowledge. The Dutch colonisation, too, which destroyed with a heavy hand the tribal institutions of the natives, breaking them up into little groups of vassals or slaves, had no care for their languages, and in spite of excellent opportunities extending over several centuries, has never done anything for the study of African speech. Interest in this speech has only been awakened where there was a desire to encourage legitimate trade, or where it was recognised that the natives were the most valuable asset of the colony, and that their intellectual development therefore conduced to its best interests. This has been the case in English, French and German colonies.

The work done by France in this direction is not very extensive. The English beyond doubt have achieved most. The works of Hollis on the Masai and Nandi are of great excellence. Livingstone, the pioneer of Central African linguistics, passed

from mission work into the government service. Sir Harry Johnston has given us some valuable observations from the Uganda Protectorate, which supply a felt want.

The publications of German officials are chiefly confined to East Africa, where Swahili is the official language of the German administration. This has greatly furthered the knowledge and the practical use of Swahili among Europeans, and in my opinion it was a wise step on the part of the government to use for its own purposes the existing *lingua franca*. It was the readiest way to gain the confidence of the natives

In South-west Africa this step was not taken. The German troops in the recent war discovered the disadvantage of knowing no Herero, while many a Herero had a fair knowledge of German. Not only so, but the threats continually repeated in the German press against the Nama were read and understood by the latter. The fact of the natives having a better knowledge of the German language than the Germans had of theirs, cost the latter a heavy loss both in money and life.

In Togo and Kamerun, English has hitherto been used by German officials in their intercourse with the natives. In the former territory great efforts have been made to substitute German for it, and far more is required of the mission schools in the way of language-teaching than would be expected of a German elementary school. There are some grave objections to making the German language

universally current among the people. The young are led to form exaggerated expectations which in later life are doomed to disappointment. The authorities will therefore find it necessary to resume operations on a more moderate scale. The vernacular of the country, Ewe, will have to be retained as the basis of elementary instruction, and thus a progressive interest will be taken in its culture.

In Kamerun, English still keeps its old place, and little has as yet been done by the government for the vernaculars. Here, too, one can only hope that the importance of these languages will be more and more recognised by those in authority.

But I must not miss this opportunity of calling special attention to the work of one particular group of our colonial officials—I mean the masters of government schools, some of whom have done excellent work in linguistic publications for the benefit of Europeans, and in initiating and disseminating a vernacular literature.

The three forces whose activity in the opening up of Africa we have been contemplating, viz., commerce, missions, colonisation, have often been at enmity; but their interests, rightly understood, will as a rule be promoted rather by co-operation than by hostility. In any case all three have to depend for the furtherance of their influence to a great extent on the instrument by which mind most immediately communicates with mind, that is to say, on *language*.

LECTURE VII

AFRICAN PHILOLOGY AS AN AUXILIARY TO OTHER SCIENCES

In our day, when studies are becoming more and more specialised, it is quite impossible for the inquirer to be an expert in several subjects at the same time; indeed, if he is honest, he will have to acknowledge that he has not even attained to completeness in his own. He is glad enough if he can be counted as an authority in any one branch of his special science. The tendency, therefore, is, more and more, for specialists in different subjects to come to each other's aid. Thus, then, African linguistics is appealed to as an auxiliary by workers in various other sciences.

This applies, in the first instance, to all sciences concerning themselves with concrete *things*, but in a yet greater measure to all those which have to do with *mankind*.

The first scientific interest in Africa is that connected with *geography*. The country itself must be known before the things and people contained in it can be studied. So long as the geographer confines himself to the investigation of the earth's surface, it would seem as if he had nothing to do with

languages. But then we must remember that much information as to the interior has reached us through linguists, such as the late Dr. Koelle, who procured it by questioning natives. However inexact this information may be, it has often supplied the first data for modern exploration. Even to-day the travelling geographer will always endeavour to make inquiries about mountains, rivers, forests and deserts, and to this end he will have to be something of a linguist himself, if he does not wish to set down a great deal of incorrect information. He will find it more especially necessary in asking for the names of mountains and rivers. Those who do not know how to ask will receive strange answers. The native says, " That is a hill," or, " That is water," and the traveller enters these words as names on his map. With regard to the names of tribes, countries, or districts, the matter is still more difficult. The old tribal boundaries are as a rule easily determined by the linguist, through the difference of speech; others have to depend on various uncertain criteria—even the names themselves are difficult to ascertain. Nations often apply to themselves names quite different from those given to them by foreigners. The Germans call themselves *Deutsche*, and the French call them *Allemands*. There are nicknames and names of opprobrium, names derived from the national salutation or other peculiarities, tribal names and clan-names; and without some degree of linguistic knowledge it is impossible even to distinguish between them. The determination of local

names, too, is far from easy. As we ourselves, in rural districts, frequently designate a place by the name of a man who lives there, so also in Africa. If the estate changes hands, the name changes as well. The subjects of the Sango chief Melele (Merere) used naturally to call his residence "Pa-Melele," "at Merere's," but this was not the real name of the place. Such names last only so long as the chief continues to live there. The old local name is often more or less disused, yet this is the one which is really important to know.[1] But, assuming that the geographer has really succeeded in getting at the right name, it is extremely difficult for the untrained ear to seize and record it correctly. Every traveller writes down the words as they sound to him, so that names occur on our maps which are difficult, if not impossible, to identify by inquiry on the spot. It is advisable, first, to have all names examined by an expert before they are inserted in the map, and, next, to discover a method of spelling these phonetically written names in such a way that they can be pronounced without difficulty by European readers.

Descriptive natural science, too, can ill afford to dispense with the help of the linguist. In order to get at the habitat of an animal or plant, it is very

[1] These local names, moreover, are often derived from an older population, *e.g.* from the Kelts in England and the Scottish Lowlands and from the Hottentots in the Kafir country. These names are no longer understood by the present inhabitants, but they reveal to those who possess the requisite knowledge the ancient history of the district.

desirable that the native name should be added. Of course this can only be of use if done with a proper understanding of the subject. We must know, in the first place, who the man to be questioned is, and what sort of questions we can ask him with any hope of obtaining satisfactory answers. The hunter will be able to give information about quadrupeds, the herdsman about fodder-plants and poisons, the fisherman about fish. Names of butterflies, beetles, flies, etc., will often be asked for in vain. We must, therefore, take care to question every man within the limits of his occupation, otherwise the information given will probably be incorrect. Individuals, too, will vary in the degree of their knowledge, even within these limits. No one cares to remember the names of things which do not interest him. If you ask the first European you meet for the names of plants or insects in his native language, what is likely, in most cases, to be the result?

In writing down names again we must not forget to note the language to which each one belongs, as without this precaution our notes will be worthless. And for this purpose we must make certain beforehand, whether our informant is really familiar with the language in which his information is conveyed. When all these sources of error have been, as far as possible, eliminated, it may yet happen that we get several names for the same object. These names *may* be really synonyms, but it is more likely that they denote different stages in the growth, say,

of the same plant, or that one signifies the flower and the other the fruit, or the like. Thus in Swahili rice unhusked is called *mpunga*, when husked, *mchele*, and when cooked, *wali*. In the same way, the cocoa-nut goes by different names according to its degree of ripeness. It may also happen that different objects bear the same name, just as in German elder and lilac are both called *Flieder*, though there is no connection whatever between the species. But care must be taken to ascertain accurately if the word really represents the object, or whether the name is merely a general designation, such as " weed," " wild beast," which might mean anything. Besides all this, there is the risk of putting down as names all sorts of phrases one does not understand, such as " There is no such thing," " I don't know," " I told you that yesterday," " You have written that down already," etc. Such misunderstood names are of no use whatever.

One specially important branch of botany is the study of useful plants, such as timber, fibres, rubber-plants, and cereals. Inquiries as to their occurrence in a wild and a cultivated state and the number of known varieties will be greatly facilitated by the help of the natives, which, of course, is not available unless we can speak to them. Another subject which deserves our attention is that of *medicines* and *poisons*. The magician's charms are not all of them mere harmless humbug. Some are good and efficacious medicines, others dangerous poisons; and their determination is greatly facilitated by

the co-operation of the linguist. I am here more especially alluding to the extensive and painstaking work done by Captain Herrmann,[1] who has noted down a number of such medicines and their uses. But much more important than the help given by the linguist to natural science is his co-operation in the Science of Man. African *anthropology* will always be compelled to keep in touch with linguistics. The connections between Hamites and Semites, between Hamites and Bantu, between Hamites and Hottentots are to be proved both anthropologically and linguistically — one science here supports the other. The dividing line between the Sudan negroes and the Bantu cannot be determined on anthropological grounds though it can by means of language. As the linguist cannot do without the help of the anthropologist, the latter is, conversely, often enough dependent on the help of the linguist. And for all theories as to the primitive history of the Africans and their migrations, the assistance of the linguist is simply indispensable.

The ethnographer deals with the culture of the natives, their implements, their dwellings, their weapons, their mode of life. His aim is not to be attained by the mere collection of objects: he must know their names and uses. To give an example from my own experience—I had thought, till quite lately, that the perforated stones so often found in Africa were always stuck on the point of the digging-

[1] *Transactions of the Berlin Oriental Seminary*, vol. i. div. 3, pp. 146 ff.

stick in order to give it weight. This, however, is not the case, as I was recently able to convince myself at the Somali village at the Stellingen Exhibition (Hamburg), where I saw the implement in use. It is put on the top of the stick, and so not only weights it, but increases the leverage in breaking up the soil.[1] Similarly, with the method of fastening the bowstring, with the " loose " of the arrow, and many other things, we may come to wrong conclusions, unless we see the action for ourselves. And this can scarcely be effected without a knowledge of languages. The study of African *music* has entered on a new stage by means of the phonograph. With the help of this instrument, we can repeat an air as often as we find necessary, can ascertain the scale, count the rhythm and do all that is needed for a theoretic understanding of it. In doing all this, it has been discovered that in Africa, as elsewhere, there exists a technique of music; and if we want to learn this, we must be able to talk to the people.[2] It is not enough to hear a piece—we must know what it means to the natives, for to us it conveys no meaning. As we have a polyphony in music, so the African has a polyphony of rhythm, which is in the first instance quite unintelligible to us. The words of the songs must be correctly taken down and translated, otherwise we may fall into errors similar to that of the ethnographer who trans-

[1] *See* Livingstone, *Last Journals*, vol. i. p. 89.

[2] Here we have also to deal with the difficult question how the pitch of spoken language is related to music.

lated by " Work! Work! " a line of which the real meaning is, " There is no God but God! " Besides this, the mere translation is not always sufficient. Many songs are full of archaic expressions and allusions which require detailed explanation.

The same holds good with regard to every other art or handicraft. In the Berlin Museum are a number of carvings from Togo, of which the meaning was unknown till Westermann discovered that they were a kind of ideograms used for the recording of proverbs.[1] The meaning of the ornaments on drums, dishes, stools, is not immediately intelligible to us; we have to ask the people about it, and even then, in many cases, long and careful inquiries will be necessary before we can arrive at the truth.

In recent times the study of *native law* has excited a special interest. This is a question of great practical importance, if we accept the view that the natives are the most valuable asset of our colonies. But it is no less significant from a purely scientific standpoint. We can here gain an insight into the origin of law and custom. One of the problems before our colonial officials is that of finding the point of contact between the native sense of justice and our own; to make the European laws and customs intelligible to the African and to educate him into obedience to our law. But this presupposes a thorough knowledge of native law,

[1] *Cf.* Meinhof, in *Zeitschrift fur Aegyptische Sprache und Altertumskunde*, 1910. The so-called " gold-weights " from Ashanti are now known to be used as aids to memory in story-telling.

which, except where Muhammadan law is in force, consists of unwritten custom, while their views of what constitutes justice differ appreciably from ours. Without a knowledge of the language we can gain no real insight into these things. There is a lack of words to express the ideas. One great difficulty is that caused by terms of relationship. It is not only that polygamy produces relationships of a kind to which we are unaccustomed, but the whole idea of kinship is different. For instance, there is no precise word to express either brother or sister. The elder brother is denoted by a different word from that used for the younger. The sister has one name for the brother, the brother another, but the word used by the brother for the sister is the same as that used by the sister for the brother. Language is associated with this subject in a very curious way through the custom called by the Zulus *Hlonipa*. A woman is forbidden to mention the names of her husband and his male relatives. If any of these names should be some well-known word of the language, she is not even allowed to use this, but must replace it by some word chosen at will. The words invented by women, however, have no currency in the language. The same rule applies to the names of chiefs. The Zulu king Tshaka had such a veneration for his mother, uMnandi (" the sweet," or " lovely " one), that her name might not be mentioned. The Zulus use the word *(u)mtoti* for " sweet."

Usually we find it beyond our power to ascertain

the forbidden degrees of marriage. Staff-Surgeon Dempwolff [1] was the first to throw some light on this difficult subject. The whole question is connected with animal-worship; people who abstain from eating the same animal are akin—no others. We have lately discovered the existence of a system of *cross-inheritance*, the son inheriting from his mother, the daughter from her father. This is connected with certain expressions in language, which have given us the clue to the institution. Another specially important subject is that of *oaths and ordeals*. In Togo, for instance, the oath is not taken at the instance of the judge, in order to compel the witnesses or the parties to the suit to tell the truth, but the plaintiff swears in order to compel the judge to take up his case. We see then that the native associates with the word "oath" a very different set of ideas from those to which we are accustomed. The ordeal, on the other hand, serves as a means of ascertaining the truth, and is so firmly believed in that a native will confess himself guilty when pronounced so by the ordeal even if innocent. To follow processes of thought so remote from our ideas is, it seems to me, quite impossible without a study of languages.

But the most extensive help rendered by linguistics has been in the investigation of native psychology, as shown in the *poetry* and *religion* of the people.

Twenty years ago I found that some people would

[1] *Deutsches Kolonialblatt*, January 1, 1909, p. 22.

not believe in the existence of African fairy-tales. Elli Meinhof's book, *Märchen aus Kamerun*, was considered to be simply a mystification. Yet Bleek had long before this published his *Reinecke Fuchs in Südafrika*, and Steere had printed his charming *Swahili Tales*, while Brincker and Büttner had both collected Herero stories. Here, again, language is the key to the heart of the people. To tell a story in a language not his own is a feat only to be achieved by a very fluent speaker of that language. Even in his mother tongue the story-teller is not supposed to use his own words, but repeats his tale word for word as he originally heard it. If he breaks down, he usually has to begin over again from the beginning. It is only to be expected, moreover, that tales should lose much of their freshness and charm in translation. It is therefore usual nowadays to write down the original text and publish it along with a literal version. The sort of problem which the linguist has to solve is well illustrated in the case of the Bushman languages. The Bushmen, being hunters, have much to do with animals, and are thoroughly familiar with their ways. In telling a story they make use of this knowledge, and possessed as they are of an extraordinary mimetic gift, they act as well as relate the adventures of the animal they are describing.[1] All this, as we shall see later, has not only an æsthetic

[1] The great interest taken in animals by the Bushmen is shown by their truly artistic power of depicting them, either by drawings, paintings, or chippings on rock.

but also a mythological source. The imitation extends even to the language used by the characters in the story: the animals are not represented as speaking like human beings, but each has its own peculiarity. Other sounds are substituted for the usual ones, syllables are added, etc., so that the student has first to render the fable out of the lion or ichneumon language into Bushman before he can translate it. None but a linguist could have discovered the key to this intricate state of things.

Of late years a large number of stories has been collected from all parts of Africa, and we now know that the African, of all people, has an unusually large store of folk-tales and is a master in the art of story-telling. In these stories we find the possibility of getting to know what the African really thinks. If to-day all sorts of fables about "the soul of the negro" are circulated by writers who have no knowledge of African languages or African tales, we may hope that they will find it less and less possible to impose their views on the public, as a knowledge of African folklore becomes the common property of educated people. The notion that these tales are all of a coarse and objectionable character is quite unfounded. There are, of course, some specimens to which such a description would apply, but along with these we find a large number which could be related to any child. The defeat of strength by cunning is a motive that often recurs and is treated with much gusto, but nobler ones such as gratitude and heroism are not wanting, and

even grown-up readers can find pleasure in entering into the ways of this unfamiliar world. And where, as in East Africa, the popular mind has been touched by a current of Arab or Indian influence, we have the brilliantly coloured flowers of the "Arabian Nights" lighting up the simple green of African fancy.

Proverbs are the hoarded experience of a people coined to meet the needs of daily life. In this department Africa possesses treasures unequalled in the whole world. Here a knowledge of language is still more necessary than in the case of the tales. Proverbs by their very nature are expressed concisely and often in old-fashioned words. When we say "the grapes are sour," no one will understand us unless acquainted with the fable of the fox who could not reach them and consoled himself with the thought of their inferiority. Without the story the words make no sense. Even proverbs which we think we understand often have another meaning than the one we at first attributed to them.[1] It cannot be pointed out often enough to those ignorant of African languages that the native's processes of thought are different from ours. A still greater difficulty is involved in long poems. We have already spoken of the short ditties meant for singing, but the poems in question, chiefly found among

[1] *e.g.* "Two ways were too much for old Hyena." Coming to the cross-roads and trying to walk both ways at once, he split asunder. "Give the wizard your child to bring up." Then he will not injure but love and cherish it. *See* Taylor, *African Aphorisms*, pp. *72*, *97*.

the Swahili, are not meant to be sung, but recited. The difficulty of penetrating the world of native thought may be shown by the fact that some Europeans who have lived in Africa for years are quite unaware that such poems exist. In order to understand them, a somewhat special knowledge of the language is required. The poetical language of the Swahili is an archaic dialect with grammatical features which have disappeared from modern speech; besides which we must remember that the same poetic licence prevails as among ourselves, and violence is sometimes done to the language for the sake of the rhyme or metre. All this the reader must know, and it is hardly necessary to say that without a first-hand knowledge of the language he cannot hope to enter into the spirit of Swahili poetry. At least he will be unable to dispense with the help of the linguist.

We shall find matters still more difficult if we enter the region of *mythological ideas*. The times are past when it was believed that these " innocent children of nature " (to use a favourite expression of that day) were devoid of any such ideas, and when it was assumed that all mythologies were either borrowed from other nations or originated in conscious deception on the part of the priests. We are convinced to-day that myths are older than rational notions, as the child first thinks in terms of mythology and afterwards learns to reason. Now, in the examination of mythological ideas we are entirely dependent on the co-operation of the linguist.

We must be on very intimate terms with a man before we can talk to him on religious questions, and these mythologies are after all the soil out of which religion grows.

The interest taken in animals by the African is not exclusively practical or artistic; it is in the first place mythological. The animal possesses, in his view, magic powers, which he too would like to possess—he thinks that its blood, its claws and teeth, its hair and feathers, contain mysterious properties which he covets. For this reason a dangerous animal cannot simply be killed; it must first be charmed by a spell. The idea that human beings are descended from animals is very widespread, and we find clans and tribes calling themselves after various animals: the lion-people, the kudu-people, the crocodiles, the chameleon-people. The tribal animal is not eaten, and in many cases people are shy of mentioning its name. They are convinced that human beings can even to-day change themselves into lions, hyænas, crocodiles, or elephants. The souls of the dead live in the bodies of snakes or cats, while demons are embodied in leopards, and no one ventures to kill these animals for fear of rendering the spirit homeless. The influence of all this on language is considerable. When speaking of the immaterial side of man we have to ask, "what is the word for spirit? for soul?" The linguist will tell us that expressions such as "breath," "heart," "shadow" are used in this connection, in Africa as elsewhere, and show

that the soul was originally looked upon as a corporeal entity.

The same question arises as to the higher forms of worship. What name is given to the spirits who are worshipped? to the dæmons? to the Heaven-gods? What ideas exist as to the creation of the world, the way in which man comes into it, and the origin of death? What are the ideas as to the life after death? We find in Togo and other countries the surprising fact that the people believe in a personal guardian spirit accompanying them through life—a kind of *daimonion*, to use the expression of Socrates. This guardian spirit returns to God after death, and later comes back to earth incarnate in another person—it may be the grandson of the deceased. Men worship these guardian spirits whom they think to be a divine element in human nature; they make images representing them and sacrifice to them.

The question as to the meaning of *divine names* constantly recurs in Africa, and the linguist is often enough compelled to leave it unanswered. Yet clues have been discovered. Some of these names are derived from sky, sun and rain, others from ancestor-worship, as when the Deity is called "the Aged," others from hero-worship, with which ancestor-worship is, of course, connected. In these cases the appellation may contain an old personal name, as we find the Cape Kafirs swearing by former chiefs of their tribe—Ndlambe or Rarabe. If so many perplexities are involved in comparatively simple matters like these, we shall not expect

to find the ritual of incantations, sacrifices, and prayers very easy to understand. In this connection we owe most to the Rev. C. Spieth of Togo, whose unique collections [1] all students of comparative religion are strongly recommended to consult. The ceremonies by which boys are admitted to adult life are closely connected with the mythological ideas of the Africans. In these, as well as in the many religious associations of West Africa, secret languages are in use. Westermann was the first who succeeded in identifying one of these languages—that used in the Yefe worship of Togo. It proved to be a foreign tongue, introduced into the country along with the imported cult. The burlesque side of these solemnities is seen in the artificial languages invented for amusement, where certain syllables are inserted at regular intervals, or the position of syllables is reversed (as in the *Kinyume* of Zanzibar). They are used, as similar ones are in Europe, to deceive the uninitiated.

I have frequently heard surprise expressed that I, as a student of theology, should have taken up the subject of African languages. As it happens, I am of opinion that scarcely any one save a theologian could have done this work under the special circumstances. As by far the greatest amount of material is to be found in the works of Protestant missionaries, and in many languages these materials consist exclusively of versions of the Scriptures, the principal utility of African linguistics at present

[1] *Die Ewestamme.* Berlin, 1906.

is as an auxiliary to missions, and work in this department requires an intimate acquaintance not only with methods of mission work, but with the missionaries themselves. Of course the scientific worker, if he wishes to make real progress, must not be content with receiving, but should be ready to place his science at the service of mission work and theology. I think, moreover, that such services may be available in other and unexpected directions. The reformed theology has from the beginning been closely associated with the study of languages, and the Semitic tongues present considerable difficulties to the theologian. If we succeed in breaking up into their component parts the rigid forms of these languages and explaining them by reference to the Hamitic idiom, we shall thereby have rendered a service to theology. But I see yet further advantages likely to accrue. If these Hamites have a close linguistic affinity with the Semites it is probable that there is some extremely ancient connection between their respective civilisations and religions. Some of these tribes have never yet been converted to Christianity or Islam. We may hope that the study of their aboriginal religion will, by comparison with ancient Semitic cults, help us to understand much which has hitherto been a mystery. I do not see my way to agree with the conclusions which Merker has deduced from his Masai researches, but there is no doubt that he deserves the fullest credit for calling attention to the important bearing of these African religions on

the study of the Old Testament. So it is evident that the theologian cannot do without the linguist as an ally.

There are some experts in scientific research who are also linguists of the first rank, but the combination is not of frequent occurrence. I know of no other scholar like Leonhard Schultze, who has done work of the highest excellence, not only in geography, botany and zoology, but also in the science of man and his social progress, and who has at the same time recorded texts and observations, surpassing everything hitherto produced in one of the most difficult languages known—the Hottentot. But it was precisely the care which he gave to the language that opened to him the hearts of the people, and he was able to obtain information which had remained inaccessible to every one else. It is the universal experience—he who would penetrate the mind of an alien people must know their language, and will find the science of linguistics his most powerful auxiliary. Luther was right when he said: "Speech is the sheath which contains the Sword of the Spirit."

LECTURE VIII

THE PROBLEMS AND THE AIM OF AFRICAN LINGUISTICS

THOSE who have read so far will perhaps be under the impression that a very considerable amount of work has already been done in investigating the languages of Africa. It is quite true that we have made very great progress since the middle of the nineteenth century, and that the last few years in particular have been fruitful of results. But it would be a great mistake to think that the main part of the task is already accomplished. It is inevitable that the studies undertaken to serve immediate practical ends should still show many gaps, and should have left out of account just the linguistic districts occupied by the "dying" languages. These are of no interest for practical purposes, but to science they are of the very highest importance. For it is these that can inform us about old, perhaps about prehistoric times, and it is just these that need to be recorded, because they are vanishing under our very eyes, before the advance of civilisation. Unfortunately few people are interested in this particular problem. In South Africa, in the finest climate in the world, there exist Hottentot languages concerning which we have only a few scanty notes. There are Europeans enough

living in the country, but who will undertake to further the cause of science by recording these languages? Yet it is only by the help of such information that we can attempt to analyse the only Hottentot language well known to us. Without it we have to depend on mere conjecture.

The *Bushman* languages, too, are spoken in a healthy climate, and as it still sometimes happens that Bushmen are imprisoned for sheep-stealing, the possibility of conversing with them is not so very remote. Their language is probably a venerable relic of great antiquity. It may be that anthropologists are right, that small people preceded the tall races not only in Africa but also in Europe, and that these Bushmen are connected, in race and mode of living, with the oldest inhabitants of our own continent. In a few more decades, nothing will be left of them but a few skulls, a few implements, and the scanty notes on their language which we at present possess. The only really satisfactory witness to their history, their living speech, will then be silent. We have, indeed, the collections made by Bleek, but a large part of them are still in MS.—the means of publishing them have not been forthcoming, as no one could see the practical utility of such a step.[1]

The same applies to the speech of the other Pygmies, as to which little accurate information is

[1] Since this was written, a part of these collections has been published by Miss Lloyd, as *Specimens of Bushman Folk-Lore*. London, 1911.

available. Meanwhile, civilisation is advancing with giant strides; the Pygmies are being exterminated or absorbed by other tribes, and their language will disappear. This is a case where any work done must be undertaken purely in the interests of science; practical considerations do not enter into the question. The linguistic areas are far too small, and the people speaking the languages too few to make it worth while from that point of view. But when we see the zeal with which science searches ancient graves for the evidence of primeval history, we might fairly expect that this survival from the most ancient history of all would excite the greatest interest.

The recording of unknown languages, however, is by no means confined to these groups. In other areas also there exist languages of which we scarcely know more than the name. Thus it comes that the exact location of many languages, especially those on the outskirts of the great linguistic areas, is still extremely doubtful. We must not suppose that each has its habitat as clearly defined as we see it on the map. Even experienced linguists are frequently in doubt as to where a language should be placed.

To this end, the languages, even those already reduced to writing, must be subjected to a minute phonetic scrutiny. Not unfrequently, important phonetic processes have been entirely overlooked. When I visited East Africa in 1903, I had for the most part to deal with languages already fixed by writing, and my task was to examine whether the

system adopted was sufficient for the sounds or not. Everywhere I made interesting discoveries of points no one had hitherto noticed, even in the comparatively well-known Swahili tongue. The same thing has happened with regard to other languages which I have had the opportunity of studying in Europe, and I am convinced that these, too, possess phonetic distinctions hitherto to a great extent unnoticed. And these are not insignificant trifles, but such things as, for instance, the "tones," which are absolutely essential for making oneself understood.

The more students equipped with a sound phonetic training come forward to take part in this work, the more rapid will be the progress made, and for this reason I attach extreme importance to phonetics in connection with the study of African languages. But from a grammatical point of view also, an enormous amount remains to be done. Much surprise has been expressed because, after twenty-five years' comparative work at the Bantu languages, I have not yet written a Comparative Grammar of these languages, but only the "Outlines" (*Grundzüge*) of such a grammar.[1] The reason is not only that we are still far from knowing all the Bantu languages; for the author might, as Bleek in his time did, confine himself to those which are known. The impediment is a different one—the fact that the real connections of things can only be very gradually determined. It is true that we might build up our grammar according to a pre-

[1] Berlin, 1906.

arranged scheme, but that would not help us. The only satisfactory method is to try and understand how things really came to be what we find them, and that is a slow and difficult task for a grammarian unconsciously biassed by European habits of thought. When the solution of the problem has been found, it is usually very simple; but a simple result often has to be reached by means of very complicated process. Thus, a series of important modifications in the verb and pronoun have only become clear to me since the publication of the *Grundzüge*, and before all the grammatical modifications of a language are fully understood, there can be no question of writing a Comparative Grammar. I scarcely think, indeed, that we shall make any further unexpected discoveries in Bantu grammar; but in Africa, more than elsewhere, it is never safe to leave the unexpected out of account.

Hamitic grammar is still a much greater puzzle to us. Its treatment appears to suffer from the fact that most of those who have worked at it have been Arabic scholars, and therefore have brought with them to the new subject preconceived notions derived from a grammar more nearly approaching that of the European languages. The progress made by Westermann in Ful is partly explained by the fact that he approached his subject not from the north, but from the south: a student fresh from the speech of the dark race would be more free from grammatical prepossessions. The Hamitic languages differ grammatically among themselves

much more than do the Bantu. They are less numerous, but each of them has a much more pronounced individual character, which makes their investigation much more difficult. Moreover, no exact research into their phonetic laws has yet taken place,[1] though Reinisch has collected a large quantity of important material.

The comparative grammar of the Hamitic languages, then, has first of all to ascertain the grammatical points of view assumed in those languages. This is essential, for here we have to do with an entirely original way of looking at things. A few examples will illustrate this.

In the Semitic and Indo-Germanic languages, grammatical gender exists—we take it into account as an accomplished fact. In Central African and Mongol speech it does not exist, and therefore has simply to be omitted when drawing up the grammar of these languages. In the Hamitic tongues, gender exists to a certain extent, but it is not yet in all cases a permanent characteristic of the noun; and, where this is so, it is still in course of development. Here, then, we have the possibility, so long sought for, of understanding the origin of grammatical gender.

The matter stands thus. Reference was made on pp. 90, 100 to a primitive division of nouns into classes, according to their meaning. This is the case in Bantu and also in Ful. But in the latter the class of "human beings" has acquired a distinct pre-

[1] This was written before the publication of Professor Meinhof's book, *Die Sprachen der Hamiten.*

ponderance over the rest; and so we get two great contrasted classes, that of " persons " and that of " things." With the contrast between persons and things is associated a second contrast, that between " large " and " small." The person is thought of as significant, self-directing, important, or for simple people who always think in concrete images, as " large," the thing as insignificant, directed by others, unimportant, to the concrete imagination as " small." But the two sets of ideas do not completely coincide, and so in Ful we have a fourfold division:

Person	*Thing*
Large	*Small*

But even here the circles tend to intersect each other. Large animals may easily be treated as persons, small people, or those considered less important, children and women—as things. In other Hamitic languages the process is simplified, and we find only a twofold division (see pp. 90, 100).

Besides this we have a further contrast, that of subject and object. The person is in the nature of things a subject, the thing an object. In the absence of case-endings the necessity arises of distinguishing the subject from the object, and this is done, among other ways, by adding to the subject a pronoun, to the object a locative particle, perhaps equivalent to our preposition " to." These affixes, in course of time, tend to be accepted as the distinguishing marks of " person " and " thing."

But as women in general are smaller than men, there is a tendency to treat them as belonging entirely to the second group. In warrior tribes they are not taken into account as responsible persons, and the common marriage custom of handing over cattle to the bride's family results in their being regarded as valuable property. All these circumstances favour the transference of women from the "person" to the "thing" class, which gradually develops into what we know as the feminine. The whole process is still manifest in the Hamitic languages; but it has to be understood as still going on, not as in any sense complete. Otherwise we shall fail to apprehend it rightly.

A further phenomenon, hitherto unheeded, is that to which I have given the name of *polarity*. This is a sort of compensatory or cross-movement. In Ful, the words denoting persons begin in the singular with a stop such as *p*, in the plural with a continuant such as *f*. In the thing-class the process is reversed, the initial sound is a continuant in the singular, a stop in the plural. That this is not accidental but in accordance with phonetic law, we see from the fact that augmentatives and diminutives follow a similar rule. Augmentatives begin in the singular with a nasal combination, e.g. *mb*, and drop the nasal in the plural; diminutives have no nasal in the singular, but take it in the plural, *e.g.* a word beginning with *b* in the singular will have *mb* in the plural. The change from singular to

plural is thus shown by a change of initial, but in the second case in a way the reverse of the first. This is what is meant by polarity.

A person in the plural becomes a collection of people, which may be looked on as a thing and is therefore treated as belonging to that class. Reversing this, we say: "Therefore the plural of a thing will be a person."

Thus we see that the masculine and feminine genders have been developed out of the relation between persons and things.

In exact correspondence with Ful, we find that the Somali masculine plural takes a feminine form and the feminine plural a masculine form. This polarity needs to be further inquired into in all the Hamitic languages.

Another point is the variety of plural-formations; it is not immediately obvious what end these were intended to serve. We can see by the help of the Hamitic languages that every way of forming the plural had in the first instance its special function, just as in Bantu each class had its own plural. It will now be our task to try to understand all these different formations and ascertain the function of each.

But we must now pass on to another group of languages.

Professor Westermann has been the first to open up the Sudan region for comparative study. The work to be done here is not only vast in extent, but rendered more difficult by the unhealthy character

of the countries in which the languages are spoken, also in part by their remoteness.

In all these languages, whether known or hitherto unknown, the vocabulary will have to be recorded in a completer way than has yet been done. It is quite a mistaken notion that they have a scanty vocabulary, on the contrary, it is surprisingly copious, and after twenty years' study of a language one may still find new words.

Then we have before us a great task of systematisation. It is not enough to divide languages into several large groups, as is done on the map. Each of these groups falls into a series of larger or smaller subdivisions. Thus we have in the north-western part of the Bantu area, one group of languages possessing a certain diminutive prefix which is absent in the rest; another which has the " lateral " sounds, in the south-east; a third which follows Dahl's law of dissimilation, in East Africa, and various others, all distinguished by some characteristic peculiarity. We have not hitherto been able to effect any clear and satisfactory classification; all attempts hitherto made must be regarded as failures—and yet such a classification is imperatively necessary.

Similarly, in the Hamitic area, the Berber languages of the north-west are clearly distinguished from Ful, and these, again, from the Nilotic languages, which, in their turn, are quite distinct from the " Cushite " languages in the east (*i.e.* Somali, Galla, Saho, Bedauye, etc.). All these differences will have

to be carefully examined in detail if we are to expect any results capable of throwing light on the original settlement of Africa.

To this great question, the origin of the Bantu languages, I am disposed to give a summary answer to the effect that they arise from a mixture between a linguistic group belonging to the Sudan languages and one allied to Ful (and therefore to the Hamitic family). This theory, however, still requires an immense amount of proof to substantiate it.

The unity of the Bantu languages has been proved by me, not merely on the ground of grammar, but also on that of vocabulary. I have drawn up a list of hypothetical word-stems, from which the words of the separate languages can be deduced according to fixed and undeviating rules. In this way I have sketched out a plan—of course very incomplete as yet—of the hypothetical Proto-Bantu language. As our acquaintance with the vocabulary of Bantu speech is still very imperfect, it is impossible to find all the common stems; and it is inevitable that much should have been overlooked. It is only gradually that we can hope to complete the list. Now, if my theory is correct, a part of the common vocabulary so obtained will be found in the Sudan languages and another part in the Hamitic languages. It is already beyond doubt that we can in this way identify some Bantu stems in the Sudan and others in the Hamitic vocabulary, though the proportion of such identifications is as yet only a small one. Should we, however, attain to some degree of

certainty on this point, the next step must be to construct a similar list of stems for the Sudan and another for the Hamitic area. A tolerably full Sudanian list has been drawn up by Westermann, but the Hamitic one is still entirely wanting, and will not be easy to supply, since we have not yet acquired a sufficient knowledge of the laws governing the Hamitic sound-shiftings and other phonetic processes. We must also take into account the influence of Semitic on Hamitic speech, which is probably near akin to it. It is difficult, perhaps sometimes impossible, to determine whether any given word is a borrowed or a cognate one.

Moreover, we have to determine the place of that old literary language, Egyptian. A few years ago it would have been classed without hesitation among the Hamitic languages. The foremost Egyptologists of our day, however, take a different view, and argue in favour of its inclusion in the Semitic family.[1] I should not for one moment venture to intervene in a controversy carried on by experts. But I cannot help thinking that the considerations adduced to prove the Semitic affinities of Egyptian would be equally valid if applied to other African languages which we call Hamitic. Fresh light has been thrown upon the connection between the two families by

[1] *See* H. R. Hall, *Ancient History of the Near East*, p. 86, where it is stated that a Semitic element was introduced into Egypt in the time of the Fourth Dynasty, along with the worship of the Sun-God. This element is much stronger than that existing in Libyan, Berber, etc., which points to a common origin for the Semitic and Hamitic languages in general.

this curious turn in the history of Egyptology. Here, then, we should have to compare the oldest monuments of written human speech which we possess—the Egyptian and Babylonian inscriptions —with the modern languages, unwritten to this day.

But our inquiry will lead us still further.

Bantu is not the only existing mixture of Sudan and Hamitic speech: it is only a hybrid product of peculiarly marked character. The other mixed languages, which are very numerous, have also to be examined with reference to their origin. And it is by no means always the case that a Sudan language is affected by importation of Hamitic words (as the Wolof of Senegambia is pervaded by a strong Ful element), and not *vice versa;* but we find that, especially in early times when the blacks were many and the whites few, the idioms of the former often penetrated the speech of their masters. The same thing happens to this day. European children in Africa learn the native language readily, but that of their parents imperfectly and with difficulty, which is only natural, since the servants who look after the children talk to them in their own tongue. Thus it seems probable that, in the early ages when Egyptian lords ruled over the land of the blacks, many words of the native tongue found their way into Egyptian. We shall have to find out whether this was in fact the case, and so, once more, modern linguistics will be able to serve the cause of historical philology.

But this is not the only department in which it will do so.

The more firmly we are convinced of the connection between Semitic and Hamitic speech, the more we shall be alive to the possibility of throwing light on Semitic grammar by means of Hamitic comparative studies. There are, however, some serious difficulties to contend with. Semitic philology has up to the most recent times been predominantly literary in character. The popular dialects have attracted the attention of but few among our scholars, the majority regarding any concern with such things as beneath their dignity. Yet it is just here that we may expect to find the key to the life and growth of language. This dislike of popular dialects becomes still more acute in the case of unwritten speech. The student is apt to feel that he has no firm ground to stand on, and that all the forms he meets with are atrophied or mutilated. In answer to this it is sufficient to point out that people preserve their language better without writing than with it, and that it is precisely town life which wears down speech most rapidly. There are forms current to this day in the living speech of the Sudan which the Egyptologist painfully deciphers in inscriptions thousands of years old; and implements quite identical with those of the ancient Egyptians are even now in use among Africans. If, then, we can lay aside our prejudices, we shall soon understand how usefully African linguistics may contribute towards the progress of

Semitic studies. A few examples will make this clear.

In Semitic languages the neuter is still expressed by means of the feminine. This is immediately intelligible, if we know that the feminine is originally the " thing " class.

I have already referred to the curious cross-movement involving a change of gender in the plural. In Hebrew and Arabic a masculine word takes a feminine numeral and a feminine word a masculine numeral. In Hebrew, masculine nouns have their plural in *-im*, feminines in *-oth*. But the obviously masculine word " father " has a feminine ending in the plural, and the obviously feminine word " woman " takes a masculine plural. These phenomena are insoluble riddles to the Semitic scholar, but not to the African linguist.

In Arabic we find an enormous number and variety of plural terminations, but the African linguist finds nothing surprising in this; and here, too, many of the masculine plurals have feminine endings. It would be easy to adduce many other instances of the same sort of thing. What has been said, however, seems to be sufficient proof of a connection between Semitic and Hamitic speech, and we may therefore hope to throw fresh light on the study of the former.

But we cannot stop here—we find ourselves led on, step by step, to unexpected conclusions. What we call inflectional languages are found nowhere save among the Mediterranean nations (taking the

term in its widest sense), that is to say, they are confined to the Caucasian race. If, now, a connection between Semites and Hamites is demonstrated, should it prove impossible to find the link between either of these and the Indo-Germanic race?

I have been led to pay special attention to the fact that the vowels *a, i, u* are so much used in the Hamitic languages to express relations of locality. Can it be that the vowel gradation familiar in English and German (*Ablaut*) has a similar origin?[1] In any case, the question is worth investigating. It is very improbable that grammatical gender, which is found in all the countries bordering on the Mediterranean, should have been invented three times over in this particular part of the world—by Hamites, Semites and Indo-Germans. And if we admit that Hamites and Semites sprang from the same root, then it still remains improbable that it should have been invented twice over by peoples who for thousands of years have lived so near to one another and who are so palpably related by race as the Semites and Indo-Germans. If it has hitherto been impossible to discover the relationship between the speech of these two great families, the reason is partly to be sought in the fact that the rigid, highly developed, and in some cases greatly worn-down,

[1] *Ablaut* is the technical name given to the vowel-variation found in Indo-European languages, which is exemplified in *sing, sang, sung, drink, drank, drunk*, etc. Though it now serves as a sign of tense, the change was originally only a phonetic one, brought about by the influence of suffixes, since lost.

forms of literary languages formed the material for comparison, while the unwritten speech of Africa was left out of account. If these are taken into consideration we may hope to discover the key to many things hitherto given up as hopeless puzzles.

At the same time I may be permitted to point out that we have in Bantu a form of human speech in some respects more primitive than the oldest Hamitic languages; and thus a field of work abounding in undreamt-of possibilities lies before us.

The principal reason why this has been so long disregarded is, that, till the most recent times, philologists paid far too little attention to the non-inflected languages. The differences between the inflected languages seemed great, so long as they were treated by themselves. But any one turning back to the study of these from that of the non-inflected ones, will be struck far more by their resemblances than by their differences, just as those who have had much to do with black and yellow people are no longer able to lay so much emphasis on the distinction between Semites and Indo-Germans. The intellectual capacity and the traditions of civilisation common to both will be much more noticeable than the differences which formerly created a prejudice.

To what far-reaching problems has the discussion of African languages led us! Whether I shall myself be able to carry out the work here indicated, or at least to contribute to the solution of the questions suggested, remains to be seen. But I have not the

slightest doubt that the work will be done. When once its importance is recognised neither help nor encouragement nor expert co-operation will be found wanting.

For the appended map I am indebted to the kindness of Herr Bernhard Struck.

NOTE TO THE "SKETCH MAP OF AFRICAN LANGUAGE-FAMILIES"

By Bernhard Struck

The reader who has glanced through the African chapters of the famous *Mithridates* of J. Ch. Adelung and J. S. Vater (Berlin, 1806-17) from the standpoint of present-day linguistics (whether as regards the store of ascertained facts or the statement of the main questions), will easily perceive that as nearly as possible a century of scientific criticism and unremitting research has been needed to provide a classification satisfactory, not only to the linguist, but also to the ethnologist and still more to the anthropologist, of this enormous collection of African languages, which has aroused alike the incredulous astonishment of the general reader and the zeal and delight of the expert. The greatest importance has rightly been attached in recent years to the co-operation of anthropology and linguistics, and the results of Dr. Czekanowski's anthropological expedition to Central Africa have already thrown light on some affinities, which are now quite clear, especially from a geographical point of view.

It therefore seems as if the time had come to

supersede, or rather (considering the difference of scale) to supplement the large map of Ravenstein (in Cust's *Modern Languages of Africa*, London, 1883) which has hitherto been the standard authority. The difficulties of drawing up such a map will be evident to every one who has worked at the subject; the new grouping of the languages and the changes introduced into topographical details require careful sifting of materials, especially as hardly any attention has hitherto been paid to the linguistic side of map-making. Moreover, as no recent linguistic information is to hand for large areas of the continent, inferior sources have had to be made use of in determining the position of several languages. Many additions and corrections remain to be made by future workers, in particular as to the topography and the extent of some linguistic areas and enclaves. Some of the earlier vocabularies and smaller specimens of languages cannot be satisfactorily localised, as most geographical explorers seem to care little about collecting linguistic information. Barth, Nachtigal, Stanley, and, in more recent years, especially Sir H. H. Johnston, deserve special credit for not allowing their many other interests to make them neglect this work.

The appended map illustrates the geographical distribution of the African languages. A characteristic feature is the extension of the principal families in—on the whole—horizontal zones, an arrangement in the main quite independent of the direction of the coast and the distribution of plains

and mountains.[1] Nothing is yet known as to the historical age of this zonal distribution; but if Reinisch's view (now adopted also by Bezold), that the original home of the Proto-Semites is in North Africa, is correct, it would have to be placed in very early times. Both from a geographical and from an ethnographical point of view, North Africa (to-day made up of Semitic and Hamitic enclaves) can be regarded as a homogeneous whole, since we know at how late a date the Arabs invaded it and that, except perhaps in Morocco, no geographical peculiarities were decisive factors in their distribution. In consequence of the great extent of certainly uninhabited country, the boundary-lines (in which I have closely followed Ravenstein) are not here so sharply defined as they are further south—in Abyssinia, on the Senegal, in East Africa, etc. On the other hand, it does not seem practicable, even in maps on a fairly large scale, to draw the boundaries so as to exclude uninhabited districts altogether. The overwhelming majority of areas where no settlements are found belongs (as the place-names suffice to show) for economic reasons to one or other of the adjacent political units, and therefore should be included in the linguistic area of the latter. (See also my "Dialect Map of Unyamwezi" in *Mitteilungen aus den Deutschen Schutzgebieten*, Vol. 23, Map 5, with notes, pp. 101-110.) But elsewhere, too, the boundary is usually only a device of the

[1] Manifest exception, supported by exact historical testimony, is to be found in the case of the Zanzibar Arabs.

map-maker to represent the strips of variable breadth which almost everywhere in Africa separate individual areas of settlement, and therefore should be taken also as bounding the linguistic areas. Where their physical conformation permits, these frontier zones might be reckoned as natural boundaries; and if we regard either war or peaceful intercourse as a valid reason for changes in the shape of the linguistic areas, then their boundaries will have to be accepted as " natural " through a large part of their extent, even if this property can only be marked on special maps of large scale. Carefully drawn boundary-lines founded on the distribution (observed or inferred by explorers) of the dwellings of each tribe, together with a thorough criticism of authorities, are to be found more especially in Hassenstein's maps.

The adjoining zone on the south, coinciding with the southern limit of the great desert and also with the area where intensive hoe-culture begins to be possible, was originally occupied by the languages belonging to the Sudan group. The peculiar shape of this area, penetrated as it is in many places by alien elements (*e.g.* the Old-Hamitic Fulbe, extending east and west from Darfur to Senegal), is to be explained mainly by its intermediate situation. It is a question whether its position on both sides of the so-called thermal equator is connected with a diminution of aggressiveness, due to climatic influences, on the part of the neighbouring non-Sudanic tribes. In any case the location of Mbugu, with its chiefly *West*-Sudanic affinities, in the

far south-east, shows that we have to look on the present abodes of the Sudan negroes not simply as an area into which the Proto-Sudan tribes immigrated *en masse* from the north, but, as already stated, an area into which they have retreated, fronting not only north but also east and south-east.

The next ethnic zone, not (or, perhaps, no longer) linguistically distinct from the preceding and the following, that of the Pygmies,[1] shows the disadvantages which seriously handicap a race (whose gifts, moreover, only lie in one direction) [2] when it is placed between two stronger ones. The ethnic connection is totally destroyed, and we may, without going any further, infer that these people have occupied their present situation in the interior of the continent from a remote period of antiquity. But if we include the Bushmen in this view (as is certainly suggested by the existence of the little Nege and Sandawe enclaves in East Africa), their relatively greater coherence can be more easily understood.[3] The Pygmy tribes border, not only on the young and energetic Bantu expansion,[4] but

[1] See their linguistic relations as shown on my map of the Sudan Languages in Professor Westermann's *Die Sudansprachen*, Hamburg, 1910.

[2] They are neither cultivators, herdsmen, nor hunters properly so called, but "collectors" (*Sammelvölker*), who live on what they can pick up in the way of small animals, roots, berries, honey, etc.

[3] In the first half of the nineteenth century, Bushman was still spoken in the mountains of Basutoland.

[4] One section of the Batwa, again (those living on the Lulua and Sankuru), comes, strictly speaking, between two distinct Bantu invasions, and thus gives us a chronological starting point for the original expansion of the Pygmies through the Equatorial Forest.

also on the Sudan tribes pushed down upon them from the north—as is proved by the traces of a Pygmy population recently discovered behind the Ivory Coast. That their contact with the Bantu is the later of the two, may be inferred both from the etymology of the name "Batwa"[1] from the occurrence (according to the statements of Von François and inquiries made by Czekanowski) of non-Bantu-speaking Batshua among the Bantu Balolo of the Momboyo, and from the fact that the "Bagielli" of Kamerun certainly speak a language belonging to the Sudan group.[2]

Johnston already supposed the Bantu migration to be a very recent one, the north-western tribes being the earliest groups which advanced in a westerly and south-westerly direction from the eastern contact-zone of the Sudan negroes and the Hamites. This "first invasion" of Johnston is marked off with tolerable accuracy by the forest margin of the Congo Basin. The adjacent grass-lands to the east once served as a road for the

[1] See my study of the Fipa language published in *Journal of the African Society*, Supplement, July 1908.

[2] I have therefore thought myself justified in following Cust and Johnston, who on their maps include the Doko among the "Negro" (Sudan) languages. Von Luschan thinks it possible that they may be extinct by this time, as O. Neumann was unable to find them. I have not attempted to discuss the Atlas "Pygmies" whose existence has recently been asserted, since the writer who describes them does not hesitate to apply the same name to Spanish dwarfs resulting from degeneration. The "Kattea" of North Transvaal, also supposed to be Pygmies, ought probably, according to the most recent facts ascertained by Pöch, to be classed with the degenerate Bechwana usually known as Bakalahari.

ancestors of the Hottentots and their cattle,[1] just as at a later date the Bantu-speaking Hima found their way along similar country through the pass between the Congo forest and Lake Victoria, and the Niloto-Hamites farther east, on the easily passable and once well-watered floors of the rift-valleys. The only permanent settlements of Bantu in this region are in the agricultural land on the slopes of the hills or in the river-bottoms, while on the east bank of the Nile, Sudan tribes, allied to the Shilluk, have migrated southward. In the forest country of the Ituri and farther west, transpositions of the Bantu and Sudan linguistic areas are still continually taking place, especially along old lines of migration running north-east and south-west. Taken altogether, we get an ethnic and geographical picture, the detailed study of which would certainly yield interesting and valuable results. The general relation of the Bantu to the Sudan area is almost everywhere that of a sparsely settled region of recent expansion, with large areas of uniform speech,[2] to a region where broken remnants of displaced tribes are concentrated, where the population is of considerable density,[3] and the diversity of speech great. This peculiar condition of affairs is well

[1] Also the Washimba (who were in part Herero) at the beginning of the seventeenth century.

[2] *e.g.* the area of the Balolo language (Lo-Nkundu), in the bend of the Congo, with 250,000 sq. km. and perhaps 15 inhabitants per sq. km.

[3] Yoruba has 58 habitants to the sq. km., an unusually high figure for Africa. *Cf.* Vierkandt in *Wissenschaftliche Veröffentlichungen des Vereins für Erdkunde* (Leipzig), ii. 2, pp. 63-174.

illustrated (quite unconsciously on the author's part) by Czekanowski's "Ethnographical Map of the Nile-Congo Watershed." [1] Compare also the following table showing the number of languages and the respective areas of the two linguistic families:—

Languages		Area	Average extent of one language
		sq. kilo	sq. kilo
Sudan	264	6,723,000	25,470
Bantu	182	7,926,000	43,550

The area of each language becomes much larger among the Hamites, but I think that the cause here is not historical but purely geographical; these people being unable to occupy pasture-lands and watering-places sufficient for their numbers without including a disproportionate amount of sterile ground within their borders.

The limits of this note do not permit the discussion of the locality of languages in South Africa. The energetic interference of civilisation has here complicated matters in many respects to an extraordinary degree; but on the other hand it has supplied us with good materials, in some cases extending back for centuries. I may refer to Gerland's sketch of "The Cape in 1650," [2] and Ravenstein's map in Cust's *Modern Languages of Africa*, which for this region represents the state of affairs prevailing from about 1850 to 1860. My own

[1] *Zeitschrift fur Ethnologie*, vol. xli. No. 5.
[2] Berghaus, *Physikalischer atlas*, No. 71, Sheet 5 (1886).

sketch is to be taken as representing the conditions at the end of the 19th century, as hardly any data appear to be forthcoming for a record of the changes produced by the Boer War and still more by the rising in South-West Africa.

In conclusion, I should like to call attention to the group comprehended under the designation of " pidgin languages," [1] which have now for the first time been entered on a map. I propose to discuss the laws of their geographical distribution, so far as they come under the description of " trade languages " (*lingua franca*), in another place, along with those of other African trade languages. In the meantime we may compare the expansion of Hausa (whose rise is in no way due to European influence), and that of the government languages, Sudan-Arabic and Bangala, also that of Swahili (which, like Negro-English, has of late years been progressing both intensively and extensively under the ægis of colonial administrations), and again, that of " Isikula " or " kitchen Kafir," the language of the mining districts of South Africa, within the sphere of the Taal (Cape Dutch), spread by the old

[1] Unfortunately, no more elegant expression is available as (1) many trade languages in Africa have no " pidgin " form, *e.g.* Wolof, Tshi, Ewe, Kimbundu, Runyoro, etc., while on the other hand, there are " pidgin " languages, such as the Creole French of Mauritius, which have no currency as trade languages; and (2) we find elsewhere mixed languages, varying in character to an almost infinite degree, which are devoid of the " pidgin " characteristics. These arise from the intellectual level resulting when the intercourse between two races is exclusively concerned with material needs. The term " Creole " is applied more particularly to the " pidgin " languages of Latin origin.

Boer migrations and by the agency of the half-castes. Negro-Portuguese dialects are, on the one hand, the vernacular of the expatriated negro population in the islands of the Gulf of Guinea, and on the other, the medium of intercourse in the Congo and Angola trade. Under the head of the transference of language by emigration, we must refer to the so-called " Sidi "—the tolerably pure Bantu idiom of a small tribe of sailors and labourers from the Swahili coast, who have settled in Western India—as well as the " Creole " dialect of the West Indies and Surinam, as to whose geographical distribution, however, no accurate information is to hand. Of the remaining " pidgin " languages, only Cape Dutch has become a vernacular, the greater part of the coloured population of African and Asiatic origin, in Cape Colony, speaking it as their mother tongue.

The lines showing the limits of expansion of these pidgin languages must, of course, be accepted as only approximately correct. Moreover, the distribution of each within its own area is by no means uniform, the percentage of people familiar with them diminishing progressively with the distance from the centres of their expansion, *i.e.* the coast, the courses of the great rivers, the military or trading stations. Most of these languages, too, have no power of organic expansion; in some cases, as in Togo, they are not even extending their area. But all of them possess a far-reaching interest, and that not merely from the point of view of practical

colonial administration. It appears to me beyond doubt that we have before us the evolution of a new linguistic family, following a course approximately parallel to that of the families already known to us, and that we can thus watch its psychological and formal development from the very germ.

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